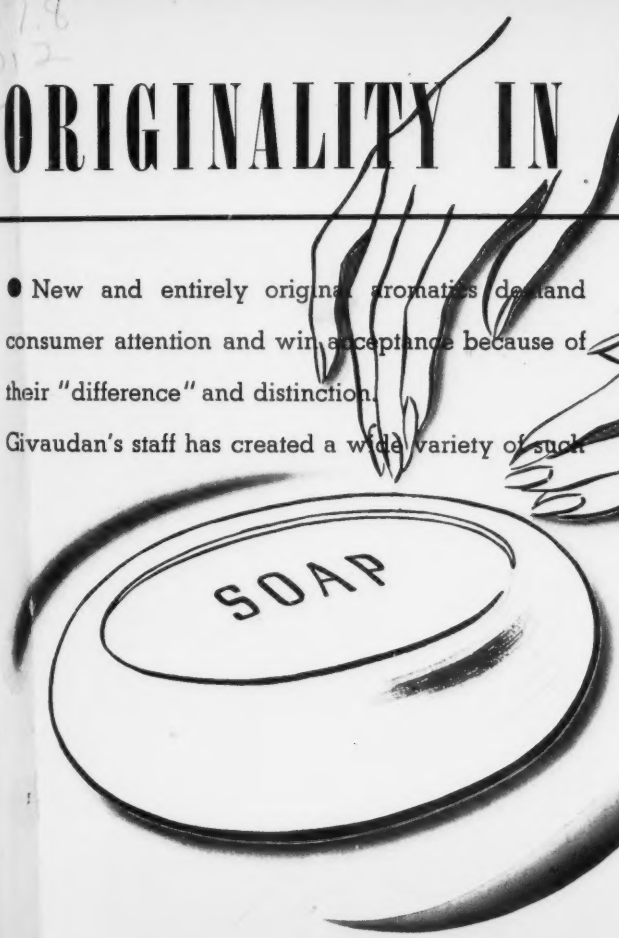
Soap

RECEIVED
APR 8 1930

ORIGINALITY IN SOAP AROMATICS



● New and entirely original aromatics demand consumer attention and win acceptance because of their "difference" and distinction.

Givaudan's staff has created a wide variety of such originals, and is constantly engaged in the development of others. In addition, we are steadily increasing, through new processes and methods, the quality and uniformity of our complete line. Whether your interest lies in new odors or in securing better quality standard aromatics, you will find Givaudan's creative ability a real asset.

Givaudan

DELAWANNA · INC.

80 FIFTH AVENUE, NEW YORK, N. Y.

and Sanitary Chemicals

WHEN GOOD PRODUCTS..

GET TOGETHER!

THEY'LL BE SEEN *in* *"National" Containers*

"National's" Packaging experts originate designs and select color decorations that strike a ***new note*** in quality merchandise . . . bring it into instant notice on crowded counter space. ● "National" will give ***your product*** a new note in Sales Harmony. ***Get together with "NATIONAL"***

NATIONAL CAN CORPORATION

SUBSIDIARY OF McKEESPORT TIN PLATE CORPORATION

NEW YORK • BALTIMORE • CHICAGO • HAMILTON, OHIO

SALES TONICS For the Leaders

DASHES out the DISHES!

One of Fulds three new washing compounds is adjusted to every dish-washing practice. Added to dish-water—they subtract grease, odors, stains and headaches in record time and economy.

BREVITEE METAL POLISH

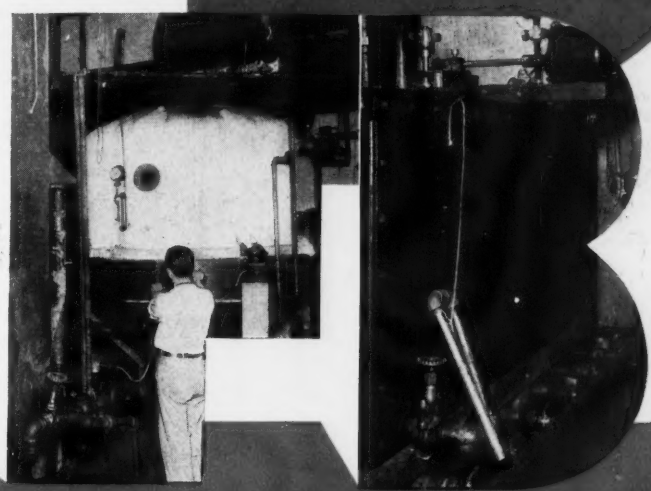
The newest breviation for rubbing. Quicker, easier and more pleasant to use inside or out. It shines in next to nothing at all.

FULSHINE Alkali-Proof CLEANER GOES OVER!

Fulshine Alkali-Proof Cleaner goes over more area and more thoroughly because its amazing scientific adjustment to alkali also gives it the desired high wetting action.

DROP-BLOX and DROP-LOK Urinal Strainer

This combination unlocks an easy volume of waiting sales to users who demand more sanitary methods of control for urinal odors. Priced to enable you to give your customers a free urinal strainer.



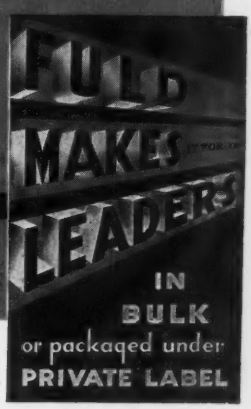
DEODORANTS • DISINFECTANTS • POLISHES • SOAPS
FLOOR TREATMENTS • CLEANERS • INSECTICIDES

702-710 SOUTH WOLFE STREET

FULD BROS.

BALTIMORE

Exclusively to Jobbing Trade



". . . And I might add, trusting to luck that none of our nosy competitors are listening, that we achieve this marvelous quality through the use of *Niagara Para*"

P.S. Similar results are easily obtained with Niagara Caustic Soda, Caustic Potash and Carbonate of Potash.

Niagara
ALKALI COMPANY
42nd STREET, NEW YORK, N. Y.
Affiliated with Electro Bleaching Gas Co.
Pioneer Manufacturer of Liquid Chlorine

Soap and Sanitary Chemicals

Volume XIV
Number 4

April
1938

SANITARY Products Section, which forms a part of every issue of SOAP, begins on page 75.

Contents

- Editorials 19
- Abrasives in Cleaners and Polishes..... 21
  By M. P. Schester
- Janitor Supplies 24
- Oil of Rose Geranium (Part II)..... 28
  By Dr. Ernest Guenther
- Synthetic Detergents (Part III)..... 32
  By Dr. Charles E. Mullin
- Flake Soaps 61
- Steamship Market for Sanitary Chemicals..... 94
- Moth Specialties 99
  By Ralph H. Auch
- The Trend in Floor Waxes..... 103
  By Dr. C. A. Tyler
- The Buyer Writes an Insecticide Specification.. 109
  By J. C. Booser
- Contracts Awarded 47
- New Trademarks 51
- Raw Material Markets 55
- Raw Material Prices..... 57
- Products and Processes..... 64
- New Patents 69
- New Equipment 71
- Classified Advertising 129
- Advertisers' Index 134

Published monthly by

MAC NAIR-DORLAND COMPANY, INC.
254 WEST 31st STREET NEW YORK, N. Y.

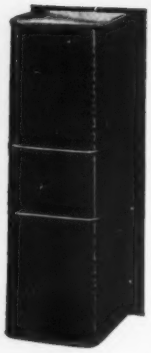
Subscription rate, $3.00 per year. Foreign, including, Canadian, $4.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Reentered as second-class matter, Feb. 9, 1938, at Post Office, New York, under act of March 3, 1879. Mail circulation, March, 1938, issue, 3,750 copies. Total distribution, 4,100.

Deodorizing Blocks
...and blockettes—
for the Trade

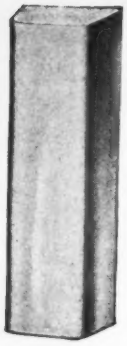
SCENTINELS
Deodorizing Cakes De[Luxe

Pure Paradichlorobenzene cakes incorporated with fragrant, exotic perfumes, beautifully packaged.

DEODORETTE CAKES



"C" CONTAINER
Oxidized or White



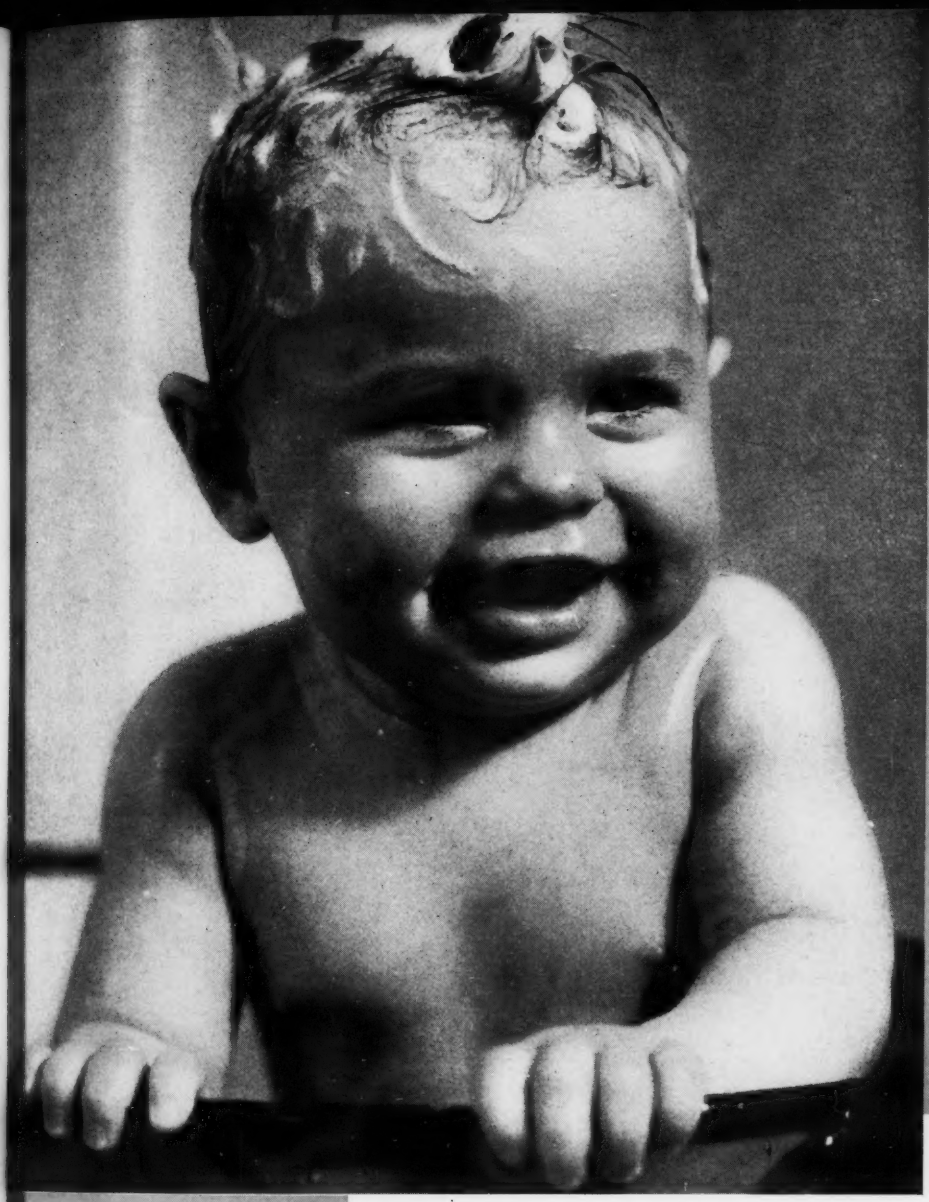
← "C" BLOCK
1½ lbs. each; 6 to set.
7"x2"x2¼". Same odors as "F" Block.

"F" BLOCKS →
2½ lbs. each; 4 to set.
8¾" x 2⅜" x 2½". Pine, Rose, Lilac, Oriental.

Send for descriptive folders and prices

"F" CONTAINER
Oxidized or White

CLIFTON CHEMICAL CO.
246 FRONT ST. NEW YORK



Something new in SOAP

Your product must have something new, something just a little better, something a little different, to be a success today.

Perfume is one method through which you can add this distinction to your soap.

May we suggest:

Carnation Savon	. . .	at $4.50	per lb.
Lavendulet Savon	. . .	at 6.00	" "
Lilacoeur	. . . . .	at 4.50	" "
Bouquet Moderne	. .	at 3.50	" "

VAN AMERINGEN · HAEBLER, INC.

315 FOURTH AVE., NEW YORK CITY

TESTS AND MORE TESTS — Day in and day out, year after year, the Anchor Laboratory is conducting tests of one kind or another on customers' packages—with various of our caps under different conditions—striving constantly to improve sealing efficiency. This Department costs us money to operate, to be sure, but it's a service that saves you money.

FOR CAPS FOR GLASS

ANCHOR HOCKING

Whatever your products . . . or packaging objectives . . . Anchor Hocking will supply you suitable, handsome and superior containers and closures.

AMERSEAL CAP — Preferred by manufacturers for thousands of products requiring dependable air-tight and leak-proof seals, the Amerseal Cap is likewise the favorite of millions of consumers. If you are looking for an economical closure that will deliver your product safely to the consumer with all its quality and full strength intact, one that can be easily applied by hand or machine, that can be removed with a mere quarter-turn of the wrist—this is it!

CAPS — CAPS — CAPS — Tin, aluminum or molded, air-tight and moisture-proof, lug or screw, with or without knurling . . . styles to meet every decorative need for greater eye appeal and sales effectiveness . . . Anchor has them all for sale!

BOTTLES—The Anchor Hocking P&P line literally includes hundreds of shapes and sizes of narrow and wide mouth styles in both amber and crystal—blakes, rounds, ovals, round cornered squares, tonics and toilets. Each is a sparkling example of fine glassmaking and careful designing that will add shelf appeal to even the most prosaic drugs and pharmaceuticals.

ANCHOR HOCKING
GLASS CORPORATION
LANCASTER, OHIO
CLOSURE DIVISION
LONG ISLAND CITY, N. Y.
and TORONTO, CANADA
Branch offices in all principal cities

MOLDS—In glass making molds are everything. On them depend sheen and brilliance, accuracy of capacity and finish, distribution of the material, weight, strength and faithfulness of re roduction. That's why Anchor Hocking takes extra care in cutting molds, polishing them and in maintaining them in perfect condition. Above is a section of one of our mold shops.

MODERN SOAP MAKING

By Dr. E. G. Thomssen and C. R. Kemp

The first entirely original American book on soap manufacture in 20 years. Thoroughly covers every phase of soap manufacture and glycerine recovery. Written by practical soap men . . . a truly practical book. 540 pages.

Contents

I RAW MATERIALS. Fats, oils, fatty acids, alkalies, perfuming materials, etc. Their selection, grades, constants, suitability, markets, etc. Methods of oil and fat refining, bleaching, storing, etc. 60 pages.

II MACHINERY AND EQUIPMENT. Types and uses of soap plant equipment. Diagrams of modern plant lay-outs, machinery arrangement, oil refining plant, etc. 12 pages.

III SOAP MAKING METHODS. Full practical description of soap making processes, full-boiled, semi-boiled, cold process, potash soaps, sprays processes, etc. Complete details from material selection, kettle charging, through to finished soap—for all types of soaps, detailed according to processes. Numerous diagrams and plant views. 110 pages.

IV SOAP PRODUCTS. Every known type of soap described with raw materials, manufacture, characteristics, uses, etc. Soap manufacture described in this chapter according to products and their uses. Laundry, toilet, potash, medicinal, etc., soaps, soap powders, scouring powders, spray process soaps, chips, flakes, shampoos, etc. 101 pages.

V GLYCERINE RECOVERY AND REFINING. Recovery methods for glycerine with designs of plant lay-out and equipment. Continuous glycerine distillation. Full description from the kettle to the finished product. Also discussion of fat splitting methods, fatty acids, distillation and refining, and allied processes. 50 pages.

VI ANALYTICAL METHODS. Methods of sampling and chemical analysis for control during process and analysis of finished products. Analysis oils, fats, soaps of all kinds, glycerine, etc. Includes official methods of analysis for numerous products. 75 pages.

APPENDIX—Contains all needed reference tables, constants of oils and fats, alkali values, conversion tables, U. S. Government specifications for various soap products, and other valuable data.

$7.50 Per Copy

(Foreign postage, 50c additional.)

Send check with order

MAC NAIR-DORLAND COMPANY

Publishers

254 WEST 31ST STREET **NEW YORK, U. S. A.**

Le Blanc Forced by the French Tribunal to Make His Patent Public.

Through The Centuries With Alkalies

Nicholas Le Blanc is known as the father of modern soda manufacture. His invention was mothered by necessity, for he won a reward of 2400 livres offered by the French Academy of Science in 1775 when the Seven Years' War with England and the Napoleonic Wars throughout Europe shut off France's supply of Spanish barilla from which most soda was made at that time. The French Revolutionists robbed Le Blanc of the fruits of his invention and he died in 1806 a suicide in an almshouse. His process, however, was so nearly perfect that it endured with little change for over 50 years.

Splendid as Le Blanc's achievement was, the soda produced to meet today's exacting standards is of a quality undreamed of in that earlier era. COLUMBIA'S well-known reputation for setting these standards still higher, backed by its air-tight system of control, insures its customers a product second to none in quality . . . which includes purity, uniformity and whiteness.

SODA ASH
CAUSTIC SODA
SODIUM BICARBONATE
MODIFIED SODAS
LIQUID CHLORINE
CALCIUM CHLORIDE

COLUMBIA

THE COLUMBIA ALKALI CORPORATION

BARBERTON • OHIO

NEW YORK CHICAGO BOSTON PITTSBURGH
CLEVELAND CINCINNATI ST. LOUIS MINNEAPOLIS

PREPARED FROM THE FINEST MATERIALS AND ENTIRELY FREE FROM ADULTERANTS

PRICE'S *triple pressed* STEARIC ACID is used by leading manufacturers of the finest toilet preparations, shaving creams and toilet soaps. Of guaranteed English manufacture, it is highly crystalline and white in color.
Melting point is 130°-133° Fahrenheit.
World famous for its unvarying uniformity in quality.
Packed in slabs of about one inch thickness in double burlap bags with a third protective inner bag forming a muslin liner.

Quotations for carloads or less upon application to exclusive American Representatives:

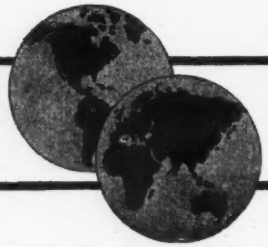
ORBIS

PRODUCTS CORPORATION

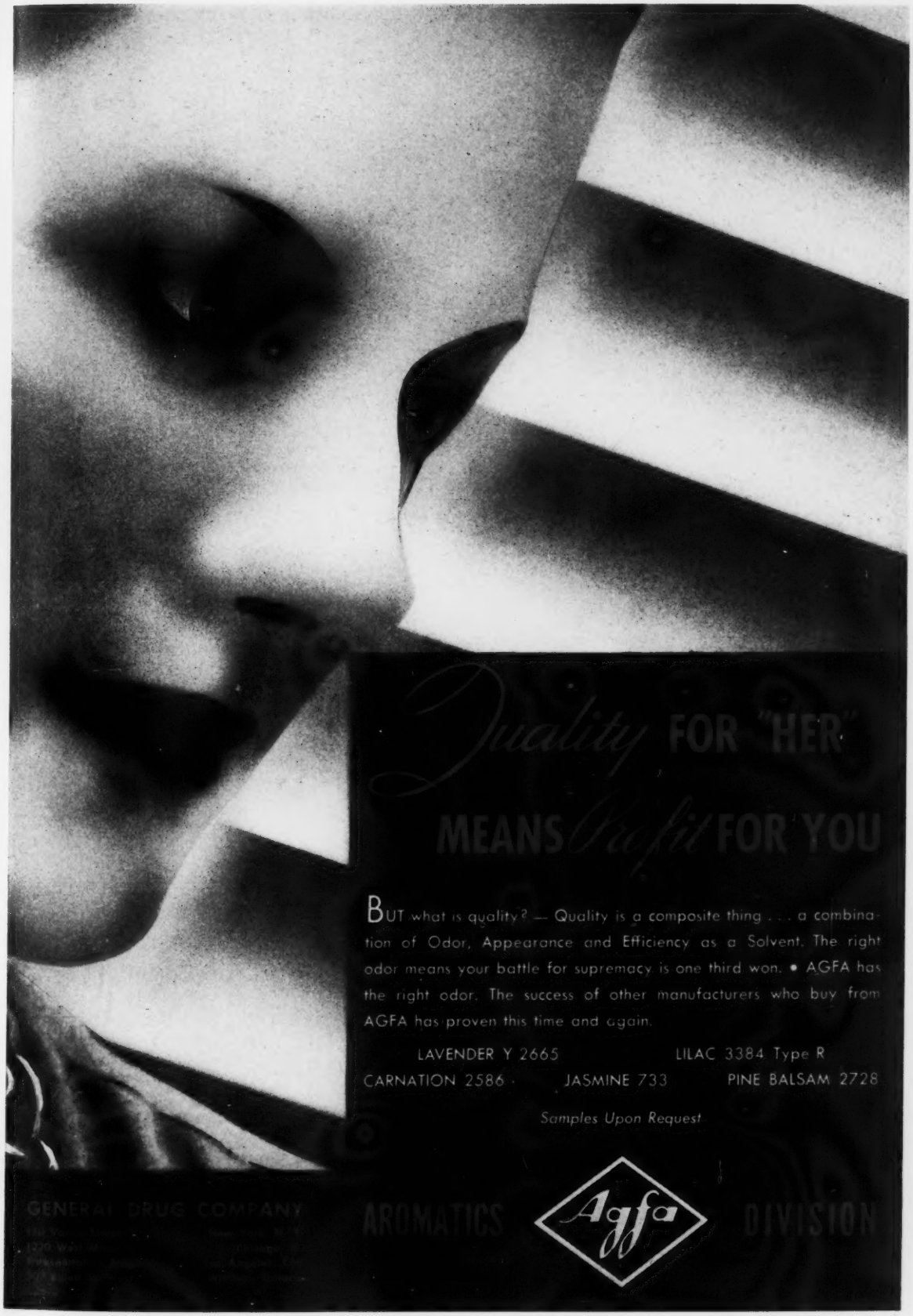
215 PEARL STREET, NEW YORK · FACTORY & LABORATORY, NEWARK, N.J.

CHICAGO 831 N. Wabash Ave.
PHILADELPHIA 610 Brown Building
BOSTON 131 State Street
CLEVELAND 15201 Elderwood Ave.

Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Filter Paper	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



MANUFACTURED BY PRICE'S OF LONDON, ENGLAND


Quality FOR "HER"
MEANS Grafit FOR YOU
BUT what is quality? — Quality is a composite thing . . . a combination of Odor, Appearance and Efficiency as a Solvent. The right odor means your battle for supremacy is one third won. • AGFA has the right odor. The success of other manufacturers who buy from AGFA has proven this time and again.
LAVENDER Y 2665
LILAC 3384 Type R
CARNATION 2586
JASMINE 733
PINE BALSAM 2728
Samples Upon Request
GENERAL DRUG COMPANY
AROMATICS
Agfa
DIVISION

For the best way!
The simplest way!
The most lasting way!

. . . TO COLOR AND PERFUME DEODORANT BLOCKS AND CRYSTALS

use FELTON COLOROMES

With Felton Coloromes, you can be certain to produce deodorant blocks and crystals with ***lasting fragrance and color!*** Your product will continue to please the nose until the final crystal has disappeared.

Try Felton Coloromes without further delay. They are economical in cost . . . and simple to use. Only one easy operation imparts both color and fragrance! Coloromes are available in a complete assortment of popular perfumes combined with related colors. (Also perfumes without colors.) Write for samples today!

FELTON
CHEMICAL COMPANY, INC.
603 JOHNSON AVE., BROOKLYN, N. Y.

Manufacturers of Aromatic Chemicals, Natural Derivatives, Perfume Oils, Artificial Flower and Flavor Oils

Stocks carried in principal cities

"BEAMAX" stands for complete satisfaction

You can depend on "BEAMAX" to please users, as it has done for years

"BEAMAX"

Dries to a Lustre

LIQUID FLOOR WAX
(ODORLESS)

There is no odor, during application or afterwards, when "BEAMAX" is used.

BEAMAX is recommended for finishing all types of floors, including rubber, wood, linoleum, rubber tile, asphalt tile, mastic, terazzo and cement.

No polishing is required to produce a lustrous, hard, beautiful finish. It dries in five to twenty minutes after application.

BEAMAX should be flowed on in a thin, economical coat. It smooths itself.

Floors waxed with BEAMAX are easily kept clean by sweeping or using a dry mop.

Insure the maximum protection of the surface with BEAMAX. *Your particular customers appreciate the fact that BEAMAX has no odor.*

BEAMAX—a perfect emulsion will not settle out even when stored for long periods—is furnished in convenient economical packages ranging from one gallon cans to fifty-five gallon drums.

A Product of

THE DAVIES-YOUNG SOAP COMPANY

Dayton - - - - Ohio

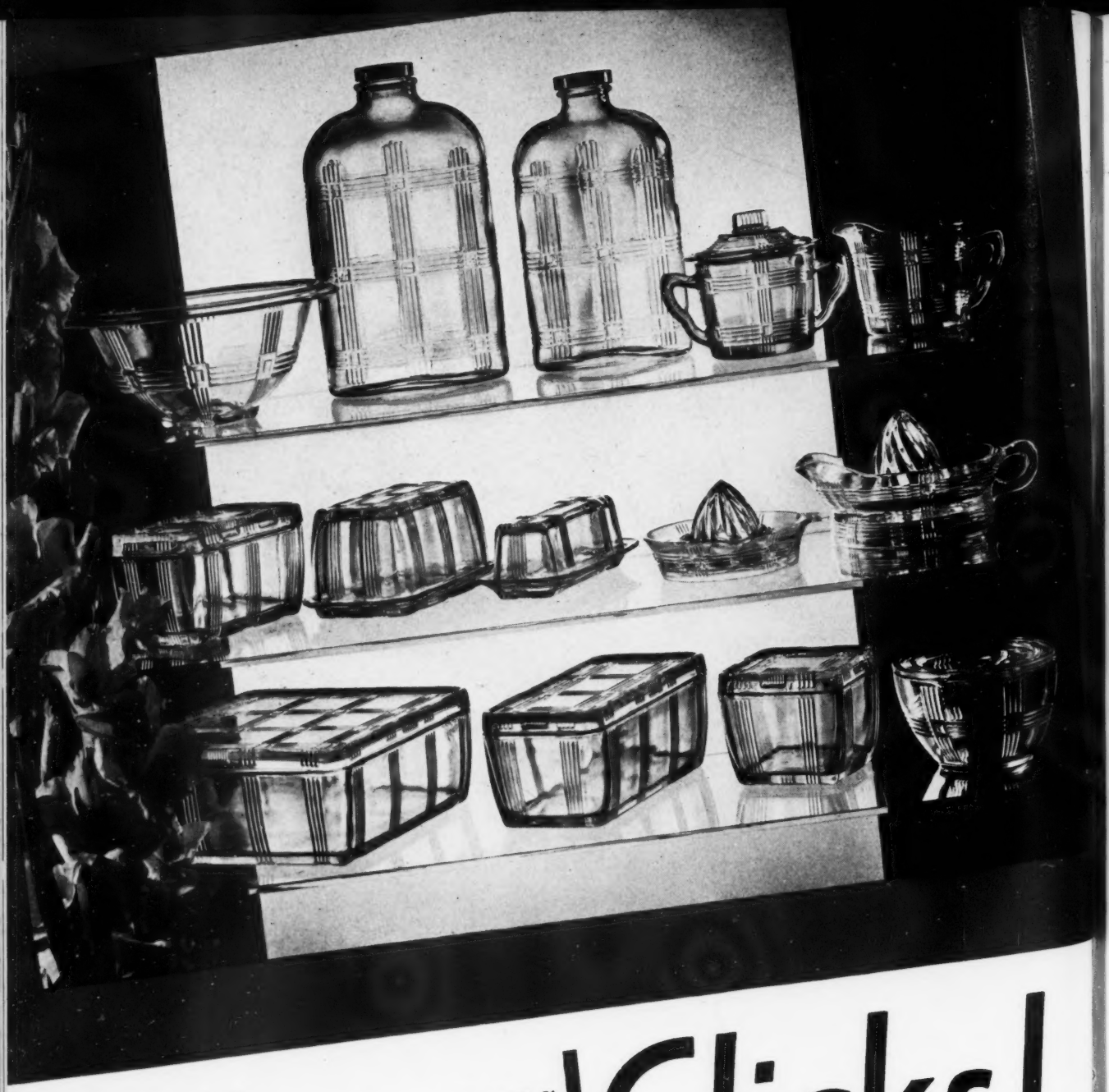
THE DAVIES-YOUNG SOAP CO.
Dayton, Ohio

Please send Sample Can and Quote Prices on "BEAMAX" (Odorless) Liquid Floor Wax.

Name .....

Address .....

City and State.....



Top Row, Left to Right
g bowl: see note for sizes
2-qt. Bottle
1-qt. Bottle
-56½ Sugar & Cover
Creamer

Middle Row, Left to Right
-1½-9782 Ref. Jar & Cover
11-81½ 1-lb. Butter & Cover
78-78½ ¼-lb. Butter & Cover
39 Lemon Reamer
40 Orange Reamer

Bottom Row, Left to Right
783-83½ Square 8 x 8 Ref. Jar & Cover
780-80½ Oblong 4 x 8 Ref. Jar & Cover
779-79½ Square 4 x 4 Ref. Jar & Cover
535-35½ Round Ref. Bowl & Cover

The Water Bottles are complete with Black Coated Double Shell Pulp & Hazite Lined Tin Caps. These mixing bowls "nest": 9873—6½", 9874—7½", 9875—8½", 9876—9½", 9877—10½".

CRISS-CROSS Clicks!

Here is a complete line (18 items!) of Criss Cross kitchenware! Criss Cross is a new premium by Hazel-Atlas available in sets or in individual pieces. Now the housewife can build up a complete matched set of these sparkling and useful premiums. Let Criss Cross sell for you! Adopt this new Hazel-Atlas ware as your premium. Write for samples, prices and further information.

HAZEL-ATLAS GLASS COMPANY

WHEELING, W. VA.

e the Hazel-Atlas Parade of Hits at the National Premium Exposition, Palmer House, Chicago from May 2nd to May 6th inclusive

And it only started as an Idea!

Faced with the necessity of expanding his market, the president of a large company selling bulk products had an idea. He visualized the possibility of an entirely new use for one of his products, packed in smaller units and sold to a broader consuming market. Crystallizing his thoughts, he called for action. Many conferences and discussions were held, experiments made. Everything had been worked out but the package. Now the question which remained was—could Continental develop the type of container they needed with the proper closure to dispense their product?

A short time elapsed while Continental's research and development departments designed, packed, tested and experimented with their product. Then, the ideal container was evolved. That which only started as an idea had been realized.

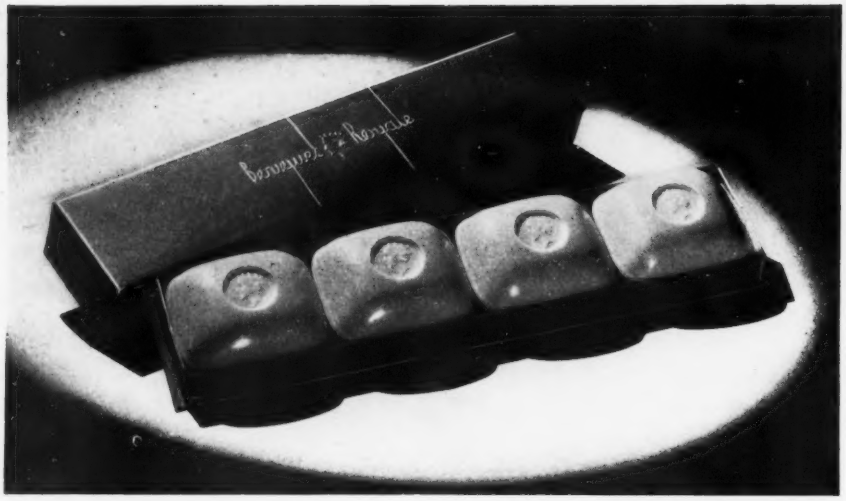
Continental has helped many manufacturers to capitalize on merchandising ideas. Continental's own suggestions have been responsible for many important sales gains. No matter what your problem is you'll find Continental preeminently qualified to render intelligent service.

CONTINENTAL CAN COMPANY

NEW YORK CHICAGO SAN FRANCISCO

MONTREAL TORONTO

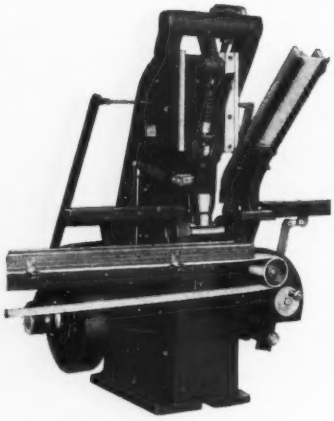
Beauty in toilet soap . . .



means greater salability

The new toggle-type pin die

JONES SOAP PRESSES



TYPE G

Toggle Operated Press for Pin Die Work

give the utmost in toilet soap beauty . . . finer finish, perfect detail, and no marred cakes . . . puts your toilet soaps in the luxury class and gives them an attractiveness impossible to secure with old-style presses.

JONES new toggle-operated presses save nerves because they work without noise or vibration.

They save money because there are no imperfect cakes to work over.

They make more money because their product sells more readily and commands higher prices.

Why not look into this matter now? ? ? ?

R. A. JONES & CO., Inc.

P. O. Box 485 Cincinnati, Ohio

Jones Cartoners package soap, bottles, jars, tins, collapsible tubes and many other articles. They fold and insert direction sheets and corrugated board liners with the loads.

As the Editor sees it..

IN spite of generally reduced employment in industry, we have recently been called upon to locate several soap makers capable of taking charge of manufacturing operations in small plants, and have not been successful in locating men with the necessary qualifications. There seems to be a dearth of practical soap makers old enough to have had some years of experience, and at the same time young enough not to have reached a salary scale which these jobs cannot pay. The practical men in this general classification all seem to have jobs, which appears to bear out the old saying that a good man is seldom without work. Quite evidently the soap industry is doing a little better than its share in the cause of steady employment.

PROBABLY the excise tax on toilet soaps, shaving creams, and dentifrices will be removed as of June 30, 1938, in the 1938 Revenue Act. At least, this is one discriminatory tax which the soap industry has been carrying for six years which will go out the window if indications at this writing come to pass.

THE powers of the Federal Trade Commission over advertising of foods, drugs, cosmetics, and devices are greatly increased by the Wheeler-Lea Bill, which recently became law. Judging from previous activities of the Commission in this direction, these new powers will be used to their fullest extent. The new law which gives wide control of advertising to the Commission, is reputed to have been written by the Commission itself. For several years past, repeated attempts have been made to divorce the control of advertising from food and drug legislation and to place it specifically in the hands of the Federal Trade Commission.

To many manufacturers at whose advertising this law is aimed, we can only say that they asked for it, that they invited it. The hope has been expressed that the Commission will move slowly and not abuse the power which has been put in its hands. However, we fear this is too much to hope. Such a concentration of authority always carries with it the threat of abuse as well as judcious use.

THE ruthlessness of foreign dictators arouses a feeling of resentment in the average American. The seeming utter disregard for the other fellow, especially if the other fellow is unable to defend himself adequately, is not looked upon as the American way of doing things. And yet, we have dozens of analagous cases right in our own backyard. The manner in which state legislatures harass American manufacturers with countless laws and regulations does not differ greatly from the way in which foreign dictators harass their weaker neighbors.

For the privilege of doing business within the boundaries of this and that state, the conditions which must be met become increasingly more stringent and costly. The ever growing multitude of restrictive laws, regulations, and expensive registration fees appears to be sweeping across the country like a horde of locusts. One state imitates another, and they all imitate the federal government,—all aiming to fill their depleted coffers at the expense of manufacturers and others *from without* the state. Truly, if this trend in legislation continues, we will eventually be in the position of doing business in forty-eight different countries.

That business and industry are incensed by this mounting flood of new state laws and regulations, is quite obvious. That they will sooner or

later retaliate, is also evident. But to the legislators who conceive and adopt these laws, only the immediate cash return seems to matter. "To hell with manufacturers in other states. We need the money. Make 'em pay if they want to do business in our state."

Sort of funny, isn't it, to get all hot and bothered about the dictators of Europe picking on their weak neighbors when we have this situation right here?

NOT so many moons back, buyers of glycerine were clamoring for shipments and demanding of refiners that they live up to their contracts,—or else. And refiners were scrutinizing orders carefully and refusing to quote any but old customers, and those only in limited quantities. And the buyers were muttering in their beards, accusing producers of deliberately boosting prices, and threatening to place their business elsewhere when the proper time arrived. Remember? Well, the purpose of this little piece is to remind those buyers who may read it, that times have changed, and to ask them if they still think that the market is rigged against them.

INDUSTRIAL injuries are the main cause of blindness in the United States. It is no secret that the vast majority of these accidents originate in carelessness. The many millions of dollars lost to industry each year because of eye injuries are really of small moment when stacked up against the human misery and suffering resulting directly from these accidents. And the sad part of it is that they are mostly preventable.

To see a plant man working with or near hot caustic, hot oil, boiling soap, acids, and the like without adequate safety equipment, always makes us feel like reminding him that he is inviting disaster. To see a man working under similar conditions with his goggles on his forehead instead of protecting his eyes, sends a chill down our spine. Just a splash of the hot caustic or acid, and the damage is done.

Through the National Society for the Prevention of Blindness, a drive to end eye injuries in industry is everlastingly being carried on. We are only too glad to add our voice to the fine work which they are doing, and to support their efforts. Again, at the request of this national society, we urge you to be unrelenting in the matter of plant discipline where safety is concerned, and not to hesitate to put real pressure on offenders against any part of the safety code.

FOR some years, chain stores have brought thousands of the necessities of life to Americans at prices admittedly lower than the run of independent merchants. And yet, legislation to restrict the chains, to penalize them, and apparently to drive them out of business, continues to bob up in various parts of the country. We wonder how the legislators who introduce these bills, and those who vote for them, attempt to reconcile their actions as a service to the majority of their constituents. Surely, all the advocates of anti-chain store legislation cannot count a majority of small retailer merchants among their supporters at the last election. We thought that mass production, and likewise economic mass distribution were two of the main planks in America's platform of a better standard of living. If so, then just where does this apparently unrelenting drive against the chains fit into the picture?

A REVENUE bill which will raise needed funds for the Federal Government, and at the same time restore confidence of business has been the aim of the Senate Finance Committee, according to Senator Pat Harrison, its chairman. Raising needed money for government expenses is an essential feature of any revenue bill. This is an obvious fact. But any tax measure in this day and age which can restore the confidence of business would be a miracle, planned by the angels and written in Heaven. We fear that the honorable Senator is a trifle optimistic. Nothing short of a butcher's cleaver could cut away the gloom which surrounds American business right now. As for removing the tax on undistributed profits, of what interest or significance will it be if there are no profits?

ABRASIVES

in Cleaners and Polishes

By M. P. Schester

Sears, Roebuck & Co.
(Microchemical Laboratory)

THE determination of the type of abrasive material employed in cleaners and polishes is a matter of prime importance inasmuch as relatively costly articles such as silverware, refrigerators, sinks, bathtubs, automobile finishes, etc., are entrusted to their action. In some cases, the abrasives employed in polishes and cleaners have been found unsuitable for use on the particular surface for which they were originally specified and it was found desirable to devise a procedure whereby the abrasive employed in these articles might be determined in a minimum of time and with little effort. The following procedure has been used successfully in making comparisons between competitive products and determining whether abrasives are or are not of a harmful character.

The method of microscopic examination is not entirely adequate in all cases inasmuch as the abrasive grains have usually been pulverized and do not retain their original crystalline form. However, microscopic examination, methods of chemical microscopy, and optical properties, may all be combined to form a complete picture. In some cases, microscopic examination suffices. In others it must be supplemented by a chemical test and in still others, by a determination of refractive index, which, in itself, is a simple matter.

Silica (tripoli), pumice, pumicite, talc, china clay, bentonite, diatomaceous earth, whiting, and feldspar are the most frequently used abrasives and have been included in this study. Tripoli is a form of silica derived from the decomposition or alteration of other materials. A typical analysis would show it to contain about 98 per cent silica. This material is hard enough to scratch steel.

Pumice and pumicite are very similar in appearance under the microscope, and have almost identical physical properties. Both are volcanic glasses and differ only in the fact that pumice occurs originally in coherent blocks while pumicite is a dust which was blown out of the craters of active volcanoes. The hardness is about 6.

Feldspar is another hard material (6 – 6.5) which occurs in the form of sodium, potassium, and calcium aluminum silicates. Talc is a softer material (1 – 3.5) composed of hydrous magnesium silicate, suitable for milder abrasive problems. China clay, an aluminum silicate, has a hardness of 1 – 2.5 and can be used as mild cleaner. Bentonite, a hydrous aluminum silicate, varies in many of its physical properties and chemical composition so that no particular properties may safely be ascribed to it.

Diatomaceous earth consists

Fig.1 Diatomaceous Earth 630X

Fig.2 Silica 310X

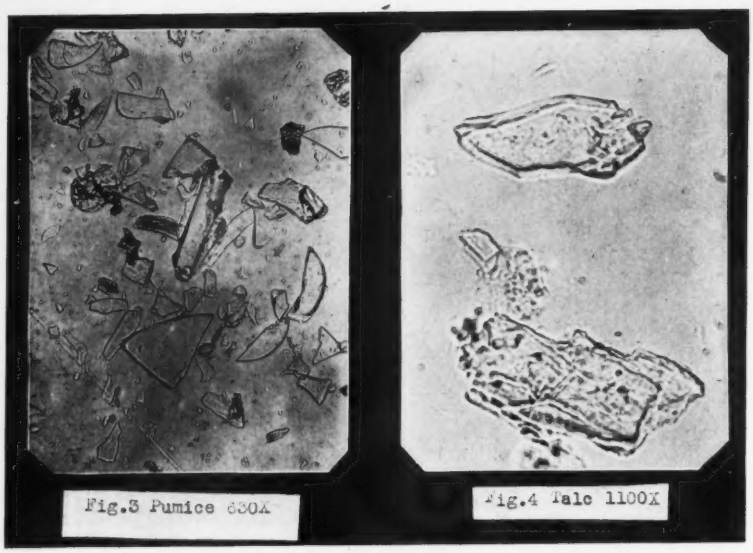


Fig.3 Pumice 630X

Fig.4 Talc 1100X

of the hydrous silica skeletons of microscopic marine creatures which have formed fossil beds. Its hardness is 1 – 1.5 which makes it an admirable abrasive where a delicate surface such as that of silverware is to be cleaned. Whiting, (calcium carbonate) is a relatively soft (3.0) material which has found application in some of the milder cleaners.

Method: The solid cleaner, or the residue from the total solids determination on liquid cleaners, is extracted several times by the addition of warm alcohol and decantation. This treatment removes the soap and is repeated with hot water to remove alkaline salts if necessary.

Microscopic Examination: A knife point of the residual powder is now added to a drop of water on a clean glass slide, the preparation covered with a cover slip to avoid contact of the front lens with the abrasive grains and the preliminary examination made.

The appearance of diatomaceous earth is very characteristic, (Fig. 1). The particles include honeycombed cellular structures, striated rods and a variety of forms resembling ordinary microorganisms. No further test is necessary in this case.

Crystalline silica (tripoli) shown in Fig. 2 occurs as hexagonal prisms and pyramids. The complete crystal form is almost always destroyed by grinding, but the individual particles retain enough of their hexagonal outline to be recognizable. The extremely jagged appearance is largely due to the lack of any definite cleavage direction.

Pumice and pumicite, (Fig. 3) resemble particles of broken glass, and to some extent, tripoli. They are readily distinguished from silica by virtue of the fact that they are amorphous glasses and therefore are completely dark no matter in which direction they may be turned when placed between crossed Nicol prisms.

Talc has a platy structure (Fig. 4) sometimes occurring as flat tablets and sometimes as masses of plates lying side by side. Further tests are described below. The material is colored greenish to white.

Feldspar (Fig. 5) resembles silica and talc to some extent. It may readily be distinguished from silica in that it contains no particles of hexagonal outline. The method of refractive index determination to be described below and the chemical method differentiate it from both.

Bentonite, clay, and whiting occur as tiny rounded grains having no distinguishing features. They are identified, therefore, by other methods.

Confirmatory tests: A. Silica is suspected. Suspend a small amount of the powder in benzyl alcohol and cover with a cover glass. Move the substage condenser out of the path of the light. Focus critically and then raise the body tube of the microscope so that the object is slightly out of focus. A bright line (Becke line) at the boundary of the grain will move toward the inside of the grain if the material under observation is silica. Silica has a higher refractive index than benzyl alcohol (1.540). Repeat with benzyl benzoate. This time the line should move outward toward the benzyl benzoate, for in this case benzyl benzoate has a higher refractive index than silica

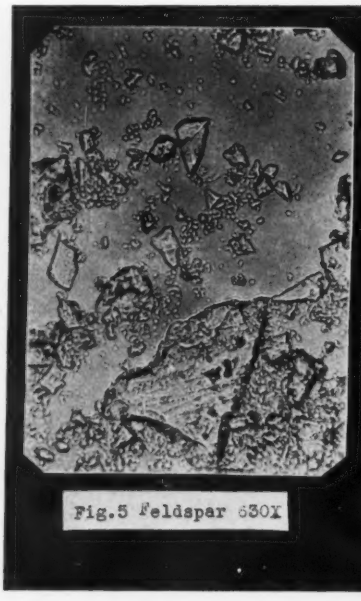


Fig.5 Feldspar 630X

Fig.6
Bentonite particles dispersing in a drop of water. 310X

(1.560). In all refractive index tests, the Becke line moves toward the substance having the higher refractive index. The index is therefore placed between 1.540 and 1.560 and confirms the presence of silica.

B. Pumice is suspected: Place a little of the substance in a drop of water, cover the preparation with a glass cover slip and cross the Nicol prisms. If pumice is present, the field should remain dark except in some portions where birefringent impurities which are always present in a material of this nature, lie. The glasslike particles will, however, remain dark. A further distinction may be made by immersion of the material in clove oil (1.526). The index of pumice is below this value and the Becke line will be observed to move toward the medium, demonstrating the fact that the index of pumice is below any of those materials tested by this method.

C. Talc is suspected: A refractive index test should be made, preferable on a particle of tablet form, using benzyl benzoate as the medium. If talc is present the line will move toward the inside of the particle since talc has a higher refractive index in this position than benzyl benzoate and a higher refractive index than any of the materials dealt with here.

This test should be supplemented by a fusion of the powder with several times its weight of potassium bisulfate over a micro-burner. The materials are ground together in a small mortar and a small quantity fused on a platinum spoon made by hammering out a piece of platinum wire. The melt is taken up in a small amount of water in a crucible and a drop of solution removed to a small glass slide. A fragment of ammonium chloride and a fragment of citric acid are added to the solution and the drop heated carefully over the flame of a micro-burner until dissolved. A fragment of disodium phosphate is added to the drop, followed by a large drop of conc. ammonium hydroxide when the disodium phosphate has dissolved. In the presence of magnesium, which would be derived from talc, the characteristic crystals shown in figure 8, are formed.

Fig.7 Calcium sulfate and CO_2 630X

Fig. 8 Ammonium magnesium phosphate 630X

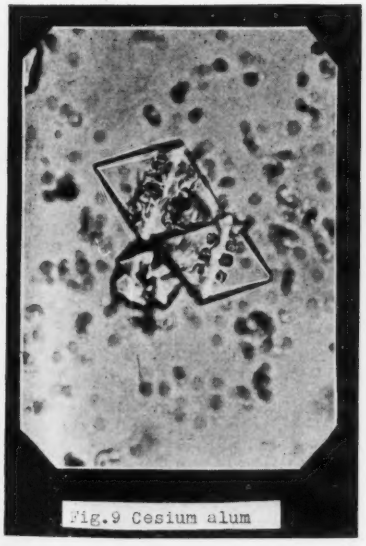


Fig.9 Cesium alum

D. Feldspar is suspected: The mineral may resemble talc and silica, but as mentioned below, the absence of hexagonal outlines precludes the presence of silica. Several tests may be employed to differentiate it from other materials. If a small amount of the powder be placed on a glass slide and covered with a cover slip, the feel produced by rubbing the cover glass against the slide will aid in the distinction. Talc has a slippery feel while feldspar grates harshly on the glass. The refractive index will be found to be below that of both silica and talc, the test with benzyl alcohol showing that feldspar has refractive index lower than 1.540.

E. Amorphous powders: The amorphous powders must be distinguished by other physical and chemical means. First, the material is suspended in a drop of water. Close to, but not touching it, is placed a drop of dilute sulfuric acid. The cover glass is dropped on the two drops in such a way as to cause them to coalesce. Gas bubbles and the formation of needle-like crystals of calcium sulfate as shown in Fig. 7 indicate whiting.

If no reaction occurs, a drop of water is placed on another clean slide and its edge focused by means of the low powder objective. A small amount is pushed toward the drop in such a manner that its entrance into the water may be observed. A needle, pencil point, or other fine object may be employed for this purpose. If the material under observation is bentonite, it will absorb water, swell, and disperse rapidly in the drop as in Fig. 6. Care must be exercised in the preliminary examination to ascertain that no diatoms are present in the amorphous material. Some forms of diatomaceous earth resemble bentonite, but may be distinguished from it by the

(*Turn to Page* 74)

. . . janitor supplies

How the janitor should not be "educated" in the composition and use of cleaning and sanitation materials

TO the many salesmen who sell cleaning and maintenance supplies to superintendents, custodians, and janitors for institutions and buildings, may be traced much of the misinformation and general "hocus pocus" which appears to go hand-in-hand with the sale of some soap specialties, detergent, scouring and polishing materials, insecticides, disinfectants, and other janitor supplies. First of all, the average supply salesman is on a straight commission basis. With all due respect for honesty, integrity, and truth, he is primarily interested in making sales so that he can, in turn, make money. If he must tell a better story, make wider claims than a competitive salesman in order to get the order, he will not hesitate, or will he be restricted in his sales story too much by the facts.

In the second place, it is common practice for some janitor supply salesmen to pass out various and sundry "technical" information about their products to buyers when neither the buyer nor the salesmen know what they are talking about. Salesmen bandy about technical phrases of which they do not know the meaning, primarily to impress the buyer. They misuse them and even mispronounce some of them. The result is that the buyer, the superintendent, or the janitor, who like the salesman, are usually without technical training or knowledge, accumulate a mental fund of misinformation, often a lot of pseudo-scientific rubbish. And when another salesman happens along who may present the true facts, devoid of "hocus pocus" or imaginative claims, the buyer in his ignorance may turn him out as a faker. All of which goes to show that it is difficult to separate facts from fancy if the necessary knowledge is lacking.

And while the subject of knowledge is being discussed, it might be well to point out that many of the better type janitor supply houses are doing all in their power to educate the janitor in the correct use of cleaning and maintenance materials, and the buyer or superintendent in their correct and intelligent purchase. There are houses which train their salesmen in the chemistry of the products which they sell and in the cleaning operations, and which forbid salesmen to use wild and unsubstantiated claims. They are, however, in the minority, and are frequently at a disadvantage when selling in competition in a market where scientific facts are subjected to so much manhandling.

That further efforts to educate the buyer of janitor and sanitation supplies are needed, is quite obvious, but they must be efforts made in good faith or they will do more harm than good. Behind too many "educational" attempts is not a true desire to educate, but a desire to sell an idea or a product. Where the background of such "educational" efforts is not too good, — that is, where the seller must resort to fake science to impress the buyer because the truth is not sufficiently impressive or is distinctly detrimental to the products in question,—the buyer usually ends up either hopelessly confused or with definite wrong information on which there is no hope of his basing intelligent purchasing.

"Education" for Janitors

IN connection with the dissemination of wrong information, a case has recently been pointed out which lends itself as an example. A series of lectures and training classes on "housekeeping" for school and other janitors was recently given in Arizona, Nevada, Idaho, Oregon, Washington, and California by a Mr. L. O. Thompson of Los Angeles, who, it is also stated, is state instructor for the State of Arizona in charge of janitor training, who runs a summer school for this purpose, and who also is stated to be sponsored by the State of Oregon Vocational Department. It seems that Mr. Thompson also publishes a small magazine called "Janitor Training," the advertising and other content of which appears to be hooked in quite closely with his class material. Now, quite obviously, the tie-up here between Mr. Thompson's teaching of janitors and his commercial venture might, without any great

stretch of the imagination, interfere with that complete freedom of bias which teachers are supposed to have.

Whether advertising or other considerations influence what he does and does not teach in his lectures, is unknown to us, but at best, this is not a hook-up that might ordinarily be designed to insure the dissemination of facts without prejudice. But that is not the point to be emphasized here. The thing which has attracted attention is the mass of misinformation which this gentleman has handed out to unsuspecting janitors and others in his lectures, as judged from a resume of his class in "housekeeping," distributed from the office of a school superintendent.

Where he discusses what the janitor should know, his honesty, his appearance, his technique, and his work, he appears to be on safe ground. However, when he goes into the subject of janitor's chemistry, and the composition of soaps, cleaners, etc. and the chemistry of their use, his material is so filled with errors and plain drivel that it would be distinctly funny, were it not likely to do harm. Quite obviously, this gentleman knows little about the chemistry of janitor supplies, if we may judge by the summary of his lectures, and yet he is undertaking to *teach* the subject, and is even the state instructor for Arizona, and has some connection in Oregon.

About Soaps and Cleansers

EXTRACTS quoted from the lecture summary, illustrate the type of wrong information which is being passed out, and emphasize the danger of unqualified people undertaking to "educate" others. Here is what is said about soaps and cleansers:

"No scrub soaps are acid—they are all alkaline, and it is the alkali that is injurious to both painted surfaces and linoleum. Soap is made by putting equal amounts of distilled water and oil into a vat. Oils used are linseed oil (linseed oil is not used very extensively now due to high cost), cottonseed oil, coal oil and even distilled sardine oil. A fire is started under the vat preparatory to cooking. The oil will naturally come to the top, and the problem is to get the oil and water to mix, so in order to hasten the saponification, caustic soda (alkali) is put in. Cheap soap has a lot of cheap caustic and is cooked quickly. Good soap has a small amount of a good grade of caustic which mixes the oil and water back and forth. It is stirred while cooking and while cooling. Good soap is let settle, and the sludge, composed of magnesia, iron and silica settles in the bottom of the tank, and the soap is then either drained off or siphoned out leaving the sludge in the bottom. Good soap should be aged. Aging helps extract surplus alkali. A good soap does not contain alkali in the excess of .1 per cent. More than .1 per cent alkali in a solution is dangerous or damaging to surfaces in cleaning, as it attacks the finish. When using an alkali for cleaning, have to put on sparingly and immediately wipe off.

"Ivory soap is not a good soap for cleaning, as it contains too much alkali, but it is a very good soap for bath and hands. In some soaps, animal fat is used instead of a vegetable oil. This is not satisfactory as the fat does not mix and globules of fat stick to the bottle or container.

"When buying soap it is better to buy a 20 per cent liquid soap (20 per cent soap and 80 per cent water). In a soap thicker or containing more solids than 20 per cent, there has usually been added a little tri-sodium phosphate and sometimes, too, a by-product of cement for a filler. If you wish to find the percentage of solids in a soap, a small amount may be placed in a container and the water evaporated."

How Soap Cleans

HERE is what is said about the use of soap: "Soap is used to cut the dirt, but this cutting has to be controlled. Soft water is the natural dissolvent. The reason one uses soap is to increase the action of the water. Good soap should go entirely into solution and not settle in the bottom of the container. Cleaning process is not one of attacking the finish or an abrasive, but is a dissolving process.

If put soap in bucket first and then add water, it will foam, and this foam is wasted cleaning ability. Should put the water in first and then the soap, and if it is a good soap it should dissolve; then when mopping the floor, there will be a lot of little bubbles or foam left by the mop, and these bubbles lift the dirt to the surface and hold it there until it can be taken off with a squeegee or with clean mop. Therefore, the lather or foam should be formed on the floor and not in the bucket. A neutral soap dissolves, and this is the method it employs. The chemical elements in the air pull the bubbles which lift the dirt. It is the mixing of the mechanical and chemical action with the natural action of the soap that makes the floor clean. Must let neutral cleaner work a little longer to let it dissolve, and the small amount of alkali it contains will not injure the surface. Alkali itself does not have anything to do with cleaning the floor, as alkali is what cuts the soap bubbles, and it will penetrate and destroy the finish, and it also is accumulative and its action will keep eating. Therefore, the cleaning process is a natural process and a dissolving process. Insoluble soaps are not good cleaners unless used with an abrasive."

Linoleum and Its Care

HERE is some enlightening information on linoleum and its care: "Linoleum: Linoleum is made of wood flour and powdered cork mixed together with oxidized linseed oil, and to this is added a binder such as liquid rubber and coloring material. This is well mixed in a large mixer. It is then run through a machine with two huge rollers, rollers being set to width and thickness they wish the linoleum rolled; it is then baked in an oven at a terrific temperature. After the baking process it is then either waxed or finished with lacquer. In cleaning, then, anything that will dissolve linseed oil is harmful, therefore, cannot use hot water, as it will dissolve oil, and cannot use alkali, as it effects the binder, therefore, is absolutely necessary to use a neutral cleaner, as when the oil and binder are gone nothing remains but the cork and wood dust. Would recommend wax for treating linoleum. Linoleum is not porous, won't absorb, is absolutely repellent.

Can clean linoleum with gasoline. Don't over advise sealing linoleum. Would advise not to lacquer or shellac linoleum, because it will wear off in streaks or spots then has to be patched. Solvent will take shellac, varnish or lacquer off linoleum by melting. Can buy colored waxes for linoleum which would be better to restore luster. Rubber burns on linoleum can be removed with gasoline and steel wool, but would recommend wax and a piece of steel wool, as this will not take off finish."

About Floor Waxes

THE following are some of Mr. Thompson's facts on floor waxes: "Old-fashioned paste wax made with bees wax, paraffine oil, solvent and perhaps a little turpentine is slippery and hard to handle. Then they came out with a liquid oil wax, non-skid, which has to be polished. Then they put out a liquid water wax that did not have to be polished. This is composed of carnauba wax, water, shellac, and a little soap emulsified with a little tri-sodium. They now also make water waxes using carnauba wax and varnish gums, lacquer or phenol-formaldehyde and emulsified into form that would stay in a solution, and which when applied would more or less resist water. The advantage of this is that it is easy to put on, and will stand a lot of wear and does not need to be polished. Although any wax should be polished if it is going to give the best service, as wax must have friction to spread out and oxidize so that it will wear.

Colored waxes are oil waxes, and on linoleum floors especially, the oil wax is best, gives more protection and keeps the linoleum livelier. Colored wax is good for pine walls as it will stain them."

Disinfectants Held No Good

HERE are some really enlightening facts about disinfectants and urinal blocks: "Care of toilet room—first, a good toilet has no odors. Second, we do not need disinfectants as disinfectants. If you have a place in toilet room that needs disinfecting, you have a place in the room where it has to be cleaned as cannot cover up one odor with another one. Using urinal blocks and things of that nature are merely a waste of money—what really is needed is a good cleaning. Area around and in front of urinal stalls should be sealed with penetrating seal. Once a week would take screen out of bottom of stems and clean the under part of the screen and clean pipe leading to trap. Where cannot see stain, take a pocket mirror and look under toilet stools and edges of urinals, etc. Can use acid to remove stain, but do not use acid on septic tank or on toilet boils with iron back. Do not use acid where there is any iron. There is a tool which will draw the water from the toilet and force down the sewer, thus facilitating cleaning. Can make a brush for cleaning underneath rims and edges. Metal hinges on toilet seats should be cleaned, and when cleaned have a cloth with vasoline and wipe every week to keep from rusting. Can remove stain on metal with metal polish or cleaner and steel wool.

Disinfectants—The average so-called disinfectant is not a disinfectant. Let us say that a certain disinfectant has a co-efficient of 3 or 5 which means that it is 3 or 5 times as strong as carbolic acid. If put even half cup full in bucket water, it has been reduced so much that it contains no disinfecting properties but is merely a deodorizer. As a germ killer, it has to be used straight and not diluted. The best disinfectants are hot water, soap, ventilation, fresh air, sunshine, and elbow grease, but if it is necessary to give the odor of a disinfectant, put 2 tablespoons of pine

oil in a bucket of water and mop off toilet seats. If have to use disinfectant, would use odorless one. The only use of a disinfectant is to satisfy the public who think it should be disinfected. Chloride and lime solutions have no odor. Wet mops should be disinfected by washing with soap and water and put in sun to dry."

And this about athlete's foot: "If shower rooms are cleaned with hot water, there should be no danger of athlete's foot. The baths with disinfectant in them that everyone has to walk through would seem to make the danger of contagion greater, as everyone would be stepping in the same place, so would just recommend cleaning with hot water. If the floors in showers are sealed the concrete becomes slippery, so best thing is to leave open. Can use duck-boards or rubber mats, but they become dirty and are hard to clean. Black creosote and sheep-dip are not necessary and anyway smell bad."

How Can This Be?

THE foregoing extracts represent the finest collection of technical trash and twaddle which has come forth in many a day. How this kind of material is permitted to be handed out in four or five states, particularly among *school* janitors, is a seven-days' wonder. And when it is realized that these extracts were sent out from the office of a *superintendent of schools*, it is even more amazing. Are there no chemists in Oregon, Nevada, Washington, or California? Have the honest and legitimate janitor supply houses in the West taken steps to shut off this "Educational" campaign? And how was this permitted to go on without being checked by school authorities who must have known at first glance that the summary was so filled with misinformation as to be hopelessly misleading? If the directors of the school systems in those states are desirous of really educating their janitors, they have certainly got away to a remarkable start.

Bribery and Fakery

THAT bribery and fakery abound in the sale of janitor and sanitary supplies is quite generally admitted. First of all, it is easy to pass off sub-quality products on a buyer or a janitor who is willing to accept them,—that is if the acceptance is made somewhat pleasant by other considerations such as a handsome gift or even a ten-dollar bill inadvertently dropped at the psychological moment. It is easy because a ten per cent soap may look just like a twenty, a cheap floor wax may look just like a good one, a useless disinfectant may look just like the best,—in fact, for the casual observer, it is impossible to tell good quality from bad in most sanitation products.

The buying and using set-up for janitor supplies, on the whole, makes questionable practices easy. The janitor as a rule is in the low-pay class and is often hard-up for extra money. That he can make or break a product in actual use, whether he buys it or whether it is bought for him, is obvious. He can make a good product look bad, and he can make some bad products look good, according to his inclination. And it takes a very strong-minded salesman, particularly a salesman on a commission basis, who will continue to ignore the practical angles of this common sales problem. For years, this type of situation has presented the greatest stumbling block for honest firms selling quality materials on a quality basis at higher prices. It still does,—and will continue to do so until those who buy and use materials are thoroughly honest and also thoroughly and correctly informed on the products which they buy. And this applies with full force to the buying of janitor supplies, and the true education of the janitor as compared to "educating" him by somebody who has an ax to grind.

———♦———

Soap is still of primary interest as a textile detergent. Since it is impossible to rinse out all of the soap in textile processing, it is dangerous to use soaps which contain impurities, as these may lead to development of rancidity. In selecting a soap, it is wise to consider these points: (1) Do not use soap made from unprocessed oils or fats containing appreciable quantities of fatty acids such as linoleic or linolenic acid, regardless of the detergent efficiency of such soaps; (2) since processing temperatures play a big part in determining the value of a detergent,—to get the best results, use a soap that performs efficiently at the particular temperature at which you are operating, e.g., do not use a tallow soap at room or slightly elevated temperatures.

Because of the wide range of operating conditions, it is not to be expected that any one soap will be outstandingly superior for all textile processes. However, the swing to the lower titered soaps for an increasing number of processes is of decided importance. Their advantages are greater solubility, which makes it possible to prepare more concentrated fluid solutions; and faster rinsibility at relatively low temperatures.

While soaps have certain well known disadvantages, synthetic detergents also have their limitations. Insofar as general detergency is concerned, soap is still supreme except for some applications. For example, in scouring high-shrinkage, high-grease content raw wool, soap still does the better job, except under particular conditions of an operating or material nature. For light scouring jobs such as backwashing tops, the synthetic products are superior to soap. For acetate rayon scouring, many leading operators have replaced soap with synthetic detergents. J. B. Crowe. *Am Dyestuff Reporter* **27**, P94-7 (1938).

———♦———

Soap powder containing more than 85 per cent of pure soap is made by mixing the fatty materials at 50-80° C. in a mixer with a concentrated solution of caustic soda. The saponification takes place very rapidly and the soap is powdered by the movement of the mixing blades. Gerschon Pasniak. French Patent No. 815,478.

Oil of Rose

Above: View of Algiers from a boat in the harbor. Right: Outside of a distillery in Algiers, showing cut geranium awaiting distillation.

WHILE the French geranium oil was developed long before the Algerian oil, the latter nevertheless has far surpassed the French oil in importance. Plantations were started in the Mitidja Plain south of Algiers soon after the conquest of that region of Algeria by France almost one hundred years ago.

The famous Mitidja Plain, stretching between the hills on the Mediterranean coast and the mountain slopes of the Atlas in the south, is one of the richest and most beautiful garden spots of all Africa, resembling the lovely Siagne Valley in Southern France with its Provencal villages, Pegomas, Mandelieu and Auribeau. As in California, agronomy has created a fertile Paradise out of a barren desert, growing a great variety of fruit, cereals and trees such as grapes, olives, lemons, oranges, mandarins, Japanese prunes, dates, figs, wheat, tobacco, geranium —cypress, willow, eucalyptus, platan, cedar and pine trees.

Many years ago, the Mitidja was renowned for its deadly climate which took heavy toll among the audacious pioneers venturing into hostile and dangerous regions. The fertile soil in a warm climate required only irrigation to develop the Mitidja Plain into a rich and prosperous granary. While reminding one in many aspects of Mother France, the Mitidja is now far advanced in modern agriculture.

Covered by dense vegetation, luxuriant gardens, long rows of beautiful vineyards, splendid olive groves and extensive geranium plantations, the Plain is walled in on the south by the hazy contour of the barren Atlas Mountains. From a radiant and luminous blue sky the sun blazes day after day. Every square foot in the Mitidja is cultivated and the ground has become very expensive. Warm, temperate climate, facilities for irrigation and proximity of the Mediterranean are very beneficial to the growth of geranium, and the plant has thereby developed into a perennial while in the colder climate of France it is an annual, to be replanted every year.

The outstanding feature of the Algerian geranium oil industry is its cooperative basis. While in Reunion Island, many hundreds of small growers and distillers produce large quantities of oil, in Algeria two cooperatives unite practically the entire industry into one powerful organization. Years ago in Algeria, too, geranium oil was produced by a great many independent distillers, with the result that there existed no control over production and markets. Prices fluctuated between extremes with all the ruinous effects of a highly competitive and chaotic industry. Today, about 60 per cent of the entire production of Algerian geranium oil is in the hands of the two cooperatives. Both occupy the same building and storehouse and are managed by the same Director, thereby eliminating unnecessary expenses. In more than one way this organization resembles the most advanced agricultural enterprise in the world, the

Geranium

A survey of the producing area for Algerian Geranium . . . the second article of a series.

By Dr. Ernest Guenther
Fritzsche Brothers, Inc.

California Fruit Growers Exchange. Plant growing and oil distillation are done by individuals, but the oils are bulked and exported as uniform lots by the cooperatives. The latter exercise thereby a certain influence upon markets and prices.

While conditions in Reunion are rather chaotic, depending mainly upon supply and demand, Algeria is in a position to exercise some control, regulate production and adjust prices to the best interest of the members of the cooperative. Of course, it cannot be expected that even with this concentration of power the Algerian geranium oil industry has found a perfect solution to all its problems. As a matter of fact, they are increasing due to such causes as the lately established social laws of Mother France. Algeria is not a colony, but is a Department of France, and laws enacted in Paris also apply to Algeria.

Buildings of a geranium co-operative in Algiers.

There is another feature which differentiates Algeria's industry from that of Reunion. The Mitidja Plain grows a great variety of products, the sale of which frequently is much more remunerative to growers than geranium oil. Whenever this occurs, the producers automatically lose interest in geranium and concentrate on tobacco, olives, fruit, etc. Algerian geranium oil, therefore, is less liable to reach unprofitable low price levels and its production increases only when it is more promising than other produce of the Mitidja.

During recent years of world depression, prices of geranium oil fell to low levels, with the immediate result that growers in Mitidja changed to products which they still could sell in France under a protective tariff at reasonable prices. The total area of geranium plants in the Mitidja Plain today is only about 1.500 hectares*, and last year only about 25 tons of oil were produced as compared with 60 or more tons in previous years. The Mitidja Plain nowadays is so well cultivated, so completely covered

* 1 hectare equals 2.471 acres.

Workers cutting the plants in the Algerian geranium fields.

Bringing in the geranium harvest in Algiers.

with all kinds of produce that there is no room left for expansion of geranium unless oil prices show a marked increase.

Cultivation of geranium is rather a soil-exhausting venture, a plantation lasting on an average not more than six years, after which crops must be rotated and other products planted in the former geranium fields. The yield of geranium per hectare is decreasing every year, and the outlook for the Algerian industry is not very bright. The total area of about 1,500 hectares probably will remain stationary during the next few years, with no marked increase or decrease. Thus, yearly oil production will depend mainly upon weather conditions, humidity or dryness greatly influencing yield of oil.

Much credit must be given to the two cooperatives and their Director, Mr. E. Trolard who has contributed so much toward alleviating many of the evils from which the industry suffered in the past. Through pressure on the part of the cooperatives, the government of Algeria has enacted strict legislation practically eliminating adulteration of geranium oil before exportation. In previous years many sins had been committed in this respect. A special analytical laboratory in Algiers under the direction of Mr. B. Angla controls every outgoing lot of oil, and severe are the fines if irregularities are detected. Mr. Angla in a series of articles has published his fine research work on the detection of adulteration in oil of geranium and it can only be hoped that other essential oil producing countries will follow this example in checking fraud. The expenses of the analytical laboratory are carried by the cooperatives.

IN Algeria, geranium is propagated by cuttings which are obtained in September and immediately planted in nurseries where they remain about two months. After that the young plants are transferred to open fields. Light gravel soil is best suited for growing, and it seems that higher altitudes produce a finer oil than lowlands. Geranium, as pointed out previously, requires a certain amount of humidity, not so much through irrigation or rainfalls as sufficient moisture in the form of sea breezes or dew. In this respect, the Mitidja has suffered greatly within the past few years, and total production of oil fell off considerably.

The low cost of native labor for many years benefited the Algerian industry, but conditions have been changed by the new and rather hastily enacted social laws of France. Harvesting of geranium is a very hard and tedious task, requiring stooping for hours in the burning sun, cutting the thick stalks of the plant by hand with sickles. There are two periods of geranium harvest, the first, from the latter half of April to the end of June, and the second, from October to the middle of November. During the first period, the plants are cut in full bloom when their odor develops from a somewhat lemon-like note to a more pronounced rose perfume. During the fall period, the plants have no flowers and are cut when the leaves have started to turn slightly yellow.

After being transported to the distillery, the plants are left lying for about twenty-four hours, supposedly to dry and reduce somewhat in volume,—in reality, probably, to ferment slightly and thereby increase the yield of oil. Distillation is carried out in regular steam stills, the steam origi-

Public square of a village in the Mitidja Plain.

nating in a separate boiler. Most distilleries contain several batteries of stills, one battery consisting of about three stills. (The capacity of one still is about 600 liters.) Producers consider one battery of three stills necessary for distillation of geranium plants from ten hectares. Frequently a battery of stills is equipped with only one condenser and while one still is in operation, the other two are being charged and discharged, respectively. Twenty to twenty-five liters of water are put into a still and distillation completed in from twenty to forty-five minutes, depending upon the oil content in the plants. At the height of the season distillation goes on night and day.

One thousand kilos of herb material yield about one kilo of oil during the spring season and 0.8 kilos during the fall season. Yield of oil depends also upon prevailing weather, dryness seriously impeding yield; it is further affected by the age of the plantation. In its third year a plantation gives the maximum yield of oil which diminishes proportionately during ensuing years.

Constants of Algerian Oil of Geranium

According to Y. R. Naves[1], Algerian geranium oils show the following extreme limits:

Specific Gravity at 15° C.	0.890 to 0.905
Optical Rotation	—6°30′ to —13°
Refractive Index $^{n}D20°$	1.4635 to 1.4725
Acid Value	Up to 12.0
Content of Geranyl Tiglinate	23.0 to 31.2%
Content of Total Alcohols	61.0 to 72%
Content of Ketones $C_{10}H_{18}O$	About 10.5 to 16%
Solubility	Soluble in 0.5 to 2.5 volumes of 70% alcohol, with separation of paraffins

Comparing these figures with our analytical data on oils directly imported and undoubtedly genuine, we note the following figures:

Specific Gravity at 15° C.	0.894 to 0.902
Optical Rotation αD	—8°30′ to —12°
Refractive Index $^{n}D20°$	1.4670 to 1.4761
Acid Value	Up to 7.0
Content of Geranyl Tiglinate	24.0% to 30%
Content of Total Geraniol	69.0% to 72.5% (Two oils distilled in 1936 showed 75.0%, but this was exceptional.)
Content of Menthone	8% to 12%
Solubility	Soluble usually in 2 volumes of 70% alcohol but sometimes slightly opalescent with more alcohol.

Map of the geranium producing areas in Algeria.

Battery of modern stills in Algerian geranium distillery.

B. Angla[2] has made a very interesting study on changes in the constants of Algerian geranium oil upon aging. He found that optical rotation and ester content decrease, whereas free acids, specific gravity and especially free alcohols and evaporation residue increase with age of oils.

Genuine Algerian geranium oil is a very beautiful product deserving wide application in all kinds of toilet preparations, especially in perfumes, lotions and powders. It has a decided rose-like, yet very round, smooth effect which makes it desirable in more expensive products. As far as application in soaps is concerned, it seems to be somewhat less powerful than the Bourbon oil which we shall cover in the next issue.

[1] "Les Parfums de France," July, 1934, page 175.

[2] "Les Parfums de France," November, 1933, page 267.

SYNTHETIC DETERGENTS

A condensed bibliography of the literature on new synthetic wetting, detergent and emulsifying agents with particular reference to the alcohols and related compounds

(*Part* III)

By Charles E. Mullin, D. Sc.

THIS is the conclusion of a bibliography of the literature on the newer synthetic wetting, detergent, and emulsifying agents, particularly the higher fatty alcohols and other alcohols and related compounds, their derivatives, occurrence, recovery, manufacture, purification, properties, testing, analysis, and uses. The first two parts of this bibliography appeared in preceding issues of *Soap*, and covered the years from 1916 to 1935. In this issue, part of 1935 through 1936 are given. Bibliography of 1937 will be compiled and published at a later date this year.

1935 (Continued)

Summary of the most important literature references on wetting agents in chronological order (from 1913 to 1935). K. Brass and A. Beyrodt. Monatschr. Textil-Ind. 50, 247 (1935).

The use of higher sulfonated alcohols in the laundry. A. Bresser. Z. ges. Textil-Ind. 38, 508-9 (1935).

Modern (textile) assistants and soap substitutes. E. Cazzola. Boll. assoc. ital. chim. tessile color. 11, 110-23 (1935).

The chemistry of the acyclic constituents of natural fats and oils. E. Chargaff. Ann. Rev. Biochem. 4, 79-92 (1935).

Colloidal electrolytes in the textile industry. A. Chwala. Melliand Textilber. 16, 509-11 (1935). Oesterr. Chem. Ztg. 38, 2-4 (1935). Translation, Am. Dyestuff Reptr. 24, 357 (1935).

Bucking (kier-boiling) experiments. G. Coch. Spinner u. Weber 53, No. 18, 9-12 (1935).

Sulfated alcohols in insecticides. E. N. Cory and G. S. Langford. J. Econ. Entomol. 28, 257-60 (1935).

The use of softening agents in flax spinning. W. Cowden. Textile Manufr. 61, 315 (1935).

The evolution of textile aids. K. Cremer. Monatsh. Seide Kunstseide 40, 23-6, 68-70 (1935). Melliand Textilber. 16, 62, 134-6, 288-90 (1935).

Wetting and spreading properties of aqueous solutions. H. L. Cupples. Ind. Eng. Chem. 27, 1219-21 (1935).

New sulfonated fatty derivatives for the textile industry. I. Davidsohn. Mat. grasses 27, 10454-7, 10488, 10514-5 (1935).

French pine oil. L. Desalbres. Bull. inst. pin 48-9 (1935).

The behavior of starch and dextrin in solutions in relation to the usual additions to the (textile) finishing sizing baths. F. Dittmar and H. Kober. Melliand Textilber. 16, 734-8 (1935).

Some interesting properties of surface-active substances. J. G. Evans. J. Soc. Dyers & Colourists 51, 233-40 (1935).

Cold-washing process for wool and wool mixtures with Igepon. G. von Finck. Melliand Textilber. 16, 209-11 (1935).

The use of fatty alcohol sulfonates in the removal of stains. C.-H. Fischer. Z. ges. Textil-Ind. 38, 367-8 (1935).

Lime soap problem in textile finishing. A. Foulon. Allgem. Oel-u. Fett-Ztg. 32, 363-5 (1935).

Evaluation of the new textile assistants in the washing of wool previous to finishing. E. Franz. Melliand Textilber. 16, 277-82 (1935).

Cosmetic and medicinal soaps. O. Gerhardt. Deut. Parfum.-Ztg. 21, 142-3, 158-60 (1935).

Sulfonated and free fatty alcohols (in finishing silk and rayon). F. Gibson. Silk and Rayon 9, 589 (1935).

A new principle and agent in detergent operations. The utility of sodium hexametaphosphate as an adjunct to soap. B. H. Gilmore. Oil and Soap 12, No. 2, 29-32 (1935).

Dispersing and regenerating agents for lime soaps. R. Hart. Amer. Silk Rayon J. 54, 40-2, 59, 60-1 (Mar. 1935).

Aliphatic organic chemicals in textile processing. N. D. Harvey, Jr. Proc. Amer. Assoc. Textile Chem. & Colorists 290-4 (1935): Amer. Dyetuff Reptr. 24, 508-12 (1935).

The routine testing of "dry" mercerizing liquors. F. T. Heyes. Textile Recorder 53, 62, 65 (June, 1935).

A review of various factors affecting the sulfonation of fatty oils. E. H. Kadmer. Seifensieder-Ztg. 62, 180-3, 207-9 (1935).

Laboratory evaluation of wetting-out agents. T. Kennedy. Dyer 74, 389-90 (1935).

Dispersion of calcium soaps by modern synthetic detergents. I and II. K. Lindner. Monatschr. Textil-Ind. 50, 65-6, 94-5, 120-2, 145-6 (1935).

The fat or wax alcohols and their technical significance. III. The sulfonation products. K. Lindner. Seifensieder-Ztg. 62, 257-8, 277-8, 299-300 (1935).

Determination of "true" high-molecular sulfonic acids in textile and tanning chemicals. K. Lindner. Chem.-Ztg. 59, 388-9 (1935).

Lanette wax (in creams, salves, etc.). S. M. Seifensieder-Ztg. 62, 989-90 (1935).

Organic syntheses based on technical unsaturated hydrocarbons. M. B.

Markovich. Trans. VI Mendeleev Congr. Theoret. Applied Chem. 1932, 2, Pt 1, 691-704 (1935).

The new detergents, (constitution and properties). D. McGill. Textile World 85, 1270-1 (1935).

Igepons and other textile assistants. J. Nusslein. Melliand Textilber. 16, 49-52 (1935).

Igepon and other textile assistants. J. Nusslein. Melliand Textilber. 16, 325-7 (1935).

Synthetic washing agents. F. Ohl. Allgem. Oel-u. Fett-Ztg. 32, 13-17 (1935).

Washing agents with a soap or aliphatic alcohol sulfate basis? F. Ohl. Seifensieder-Ztg. 62, 258-9, 279 (1935).

The estimation of gardinol and brilliant avirol. C. J. Pedersen. Amer. Dyestuff Reptr. 24, 137-8 (1935).

The trend in textile detergents. A. H. Pettinger. Soap 11, No. 7, 31, 35 (1935).

New methods of finishing blankets by means of fatty alcohol sulfonates. W. Pflumm. Spinner u. Weber 53, No. 38, 9-12 (1935).

Order among the wetting agents. J. Pinte. Rev. gen. mat. col. 39, 24-7 (1935).

Orderly classification of wetting agents. J. Pinte. Lab. anal. rech. ind. 1935, No. 27, 5-10.

The soft finishing of rayon. S. Postles. Silk and Rayon 9, No. 5, 248-9 (1935).

Detergent properties of alkalies, particularly plating cleaners. N. Promisel. Monthly Rev. Amer. Electroplaters' Soc., June, 1935, pgs. 4-19.

The physicochemical basis for the science of washing action. P. A. Rebinder. Vsesoyuznuii Nauch.-Issledovatel. Inst. Zhirov, Untersuchungen uber Physikochemie der Waschwirkung 1935, 5-34.

Preparation of sodium alkanesulfonates. R. M. Reed and H. V. Tartar. J. Am. Chem. Soc. 57, 570-1 (1935).

Oleyl alcohol (9-octadecen-1-ol). E. E. Reid, F. O. Cockerville, J. D. Meyer, W. M. Cox, Jr., and J. R. Ruhoff. Org. Syntheses XV, 51-4 (1935).

Determination of the value of auxiliary agents for mercerization. S. Replat. Tiba 13, 81-7 (1935).

Some observations on kier-boiling efficiency. F. Scholefield and D. Ward. J. Soc. Dyers and Colourists 51, 172-8 (1935).

Reactions between fibers and washing agents during the washing process. W. Seck. Fettchem. Umschau 42, 124-7 (1935).

Swelling action of detergents. W. Seck. Angew. Chem. 48, 251 (1935).

Technical advances in textile processing. R. J. Smith. J. Huddersfield Textile Soc., 1935, 79-87.

The importance of cholesterol and the value of salves containing cholesterol for the human skin. H. Stahl. Seifensieder-Ztg. 62, 888-9 (1935).

Industrial applications of colloidal electrolytes. A. Stewart and H. M. Bunbury. Trans. Faraday Soc. 31, 208-16 (1935).

Apparatus for the rapid determination of the surface tension and activity of wetting agents. M. Stiller. Chem. Ztg. 59, 208-9 (1935).

Analysis of sulfonated aliphatic alcohols and similar condensation products. E. Swindells. Dyer 73, 120-1 (1935).

Products from coconut-oil wax. S. S. Tanchico. Philippine J. Sci. 57, 423-6 (1935).

Higher alcohol sulfates as spreading agents for insecticides and fungicides are studied. W. H. Tisdale. Agr. News Letter 3, 4-5 (1935). Rev. Applied Mycol. 14, 598 (1935).

Hexadecenol in sperm-blubber oil. Y. Toyama and G. Akiyama. J. Chem. Soc. Japan 56, 1077-80 (1935). Bull. Chem. Soc. Japan 10, 579-84 (1935).

Highly unsaturated alcohols in sperm-blubber oil. Y. Toyama and G. Akiyama. J. Chem. Soc. Japan 56, 1316-19 (1935).

Hexadecenol and tetradecenol in sperm head oil. Y. Toyama and T. Tsuchiya. J. Chem. Soc. Japan 56, 1072-6 (1935). Bull. Chem. Soc. Japan 10, 573-9 (1935).

The occurrence of some new alcohols anl hydrocarbons in sperm oil. (Preliminary report.) S. Ueno. J. Soc. Chem. Ind., Japan 38, 608-11 (1935).

The conversion of fatty acids and their esters into higher alcohols by catalytic reduction at high pressures. S. Ueno and S. Ueda. J. Soc. Chem. Ind., Japan 38, 479-82, 482-6 (1935).

The properties of alkyl alkali sulfates prepared from higher fatty alcohols as detergents and wetting agents. S. Ueno, S. Yokoyama and Y. Iwakura. J. Soc. Chem. Ind., Japan 38, 603-8 (1935).

Acidic detergents. R. Vidal. Rev. gen. mat. col. 39, XLVII-XLVIII (1935).

Is soap coming into its own again? A. Volz. Monatschr. Textil-Ind. 50, Trade Issue III, 93-4 (Nov., 1935).

The surface tension of fat acid condensation products and fatty alcohol sulfuric acid esters. W. Weltzien and H. Ottensmeyer. Monatsh. Seide Kunstseide 40, 504-7 (1935).

Use of solvents and non-fatty agents in the washing process. A. E. Williams. Text. Mercury & Argus 92, 265 (1935).

The mechanism of hydrocarbon formation by high-pressure and high-temperature hydrogenation of fat acids. Y. Yendo. Bull. Inst. Phys.-Chem. Research (Tokyo), 14, 965-1080 (1935). English abstract, Sci. Papers Inst. Phys.-Chem. Research (Tokyo) 28, Nos. 603-6 (1935).

1936

Textile assistants. Anon. Deut. Farber-Ztg. 72, Beilage No. 34, 133-6 (1936).

Composition and properties of textile assistants. Anon. Silk and Rayon 10, 692, 776, 870, 954 (1936); 11, 54, 150, 250, 342, 418, 534, 634, 734, 834 (1937).

Substitutes for olive oil in wool combing. Anon. Rev. Text. 34, 145-7 (1936).

Textile chemical specialties. (List with properties.) Anon. Amer. Dyestuff Reptr. 25, 677-84 (1936).

Foam measurements. Anon. Seifensieder-Ztg. 60, 1019-20 (1936).

Valuation of scouring agents. Anon. Wool Record 49, 519-23 (1936).

Detergent action and its relationship to wetting and emulsification. N. K. Adams. Oil Color Trades J. 90, 1875-6 (1936).

The behavior of soap solutions with textile fibers. G. Baroni and C. Cola. Boll. staz. sper. seta 6, 4-7 (1936).

Determination of the "protective- colloid" value of textile auxiliaries. M. Baudouin. Melliand Textilber. 17, 654-5 (1936).

Determination of the protective colloid effect of textile assistants in the presence of calcium and magnesium ions. M. Baudouin and E. Nevall. Melliand Textilber. 17, 932-4 (1936).

The cleansing action of soaps of the elaidinized fat acids and the cis-trans isomerism. S. H. Bertram and E. C. S. Kipperman. Ole, Fette, Wachse 1936, No. 6, 1-4.

Sulfonation (of aromatic compounds) and sulfonic acids. (Many references.) S. V. Bogdanov. Org. Chem. Ind. (U. S. S. R.) 1, 678-85 (1936).

Modified method of determining inorganic salts added to dyes and other high-molecular organic substances. A. Bohanes. Chem. Obzor 11, 52-3 (1936).

Alcohols from fats. (A review.) A. Bohanes. Chem. Obzor, 11, 96-7 (1936).

A qualitative procedure for testing detergents with respect to new materials used in washing and cleaning. A. Bohanes. Chem. Obzor 11, 155-8 (1936).

Lime-soap dispersing power of wetting agents. Chemische Fabrik Grunau, Landshoff & Meyer A.-G. Angew Chem. 49, 668 (1936).

Laboratory note. Use of wetting agents and emulsifiers in the laboratory. J. Colonge. Bull. soc. chim. (5), 3, 501-3 (1936).

Conversion of synthetic fatty acids into hydroxy acids. A. Davankov and O. Fedotova. Org. Chem. Ind. (U. S. S. R.) 2, 85-7 (1936).

(*Turn to Page* 73)

Analyzing the NEW YORK SOAP MARKET

Results of a series of investigations by *The New York Times* to measure the rate of soap consumption according to income in the New York market

A RECENT study of soap consumption in the New York market made by the *New York Times* has disclosed a number of interesting angles on soap purchases as affected by income ratings. "Octagon" is indicated to be the leading laundry soap seller in the low income bracket, "P & G" the best seller in the middle bracket and "Kirkman" and "Ivory" in the top bracket. Sales figures for toilet soaps show the most productive drug store field to be in the high and medium areas. In the soap powder group the leading seller is shown to be "Rinso" which stands at the head of the list in low, medium and high income groups.

From *The Times'* investigations, *Soap* has compiled tables, one for each kind of soap, showing the comparative rate of consumption according to brands in the three income groups. In the table giving the rates of consumption for soap powders a wide difference in the sale of different brands in the same income area, and with nearly the same per cent distribution, is noted. "Rinso," with the greatest distribution in all the income groups, averages 55 large cartons per store in the "high" neighborhoods, 30 large cartons per store in the "medium" neighborhoods, and 21 large cartons per day in the "low" neighborhoods. "Gold Dust," enjoying the next widest distribution, averages 21 large cartons per store in the "high" neighborhoods, 9 large cartons per store in the "medium" neighborhoods, and 5 large cartons per store in the "low" neighborhoods. The ratio of sales of large size cartons of soap powder to small is about 2 to 1 in the high income areas and about 1½ to 1 in the low income areas. It is interesting to note "Super Suds" has a greater sale of small cartons than large in each of the income groups.

Only advertised brands were included in *The Times'* survey of laundry soaps. The soaps all averaged about the same price per cake. In the "low" areas *The Times* reports that a number of unwrapped laundry soaps were featured and sold in large quantities at low prices, such as, "O.K. Soap," "Dandy Soap," "Grade A," "Babbitt Tub Soap," and others without a brand name. They were selling for 3 cents, 3 for 10 cents but never more than 4 cents a cake. Their sales appeal was price. Many of the grocers in the "low" areas reported that they sold more of these soaps than all of the 5 advertised brands. A number of the cheaper soaps were also found to be on sale in the "medium" income areas. In the "high" areas, however, not much of this type soap was sold and was rarely carried by the grocers. Many grocers said that they carried "O.K. Soap" at one time or another, but discontinued carrying it because of the poor sale and the fact that these "green" soaps soften up and stick to the shelves. It is interesting to observe from the table that while all of the other brands sell less per store in the "medium" areas than in the "high," and still less in the "low" areas than in the "medium," "Octagon" reverses the order and enjoys the greatest sales in the "low" areas, the next greatest in the "medium" areas and the lowest in the "high."

A NUMBER of important facts were developed by the *Times* during the survey on toilet soaps which should be borne in mind when studying that consumption table. To quote from the published report: "Camay and Guest Ivory have very poor distribution in the medium and low areas due to the druggist's antagonism against Procter & Gamble who have not signed the 'fair trade agreement'. The same resentment is expressed by druggists in the high income areas who, although practically all of them handle Camay and Guest Ivory, discourage the sale of both products because of the company's attitude and the fact that they must buy these two soaps for the same price as the grocers sell them retail. Those druggists in the low and medium income areas who stock Camay and Ivory 'wont sell it except on demand', and, to quote many of them, 'when customers demand Camay we haven't got it'.

"Distribution of Cashmere Bouquet is very poor in all grocery stores because they do not consider

this a grocery item. Their sales of this soap reflect the same story. It is, however, a good seller in drug stores who encourage the sale of Cashmere Bouquet with the same fervor as they discourage sales of Camay and Guest Ivory.

"Woodbury Soap is another drug store item which enjoys about the same distribution as Cashmere Bouquet. Woodbury, however, enjoys good grocery store distribution in the high and medium areas. Only 50 per cent of the grocers in the low income areas handle it. Here again their chief complaint is 'price cutting tactics which are allowed by the company.' As a general rule, druggists, particularly those in the low income areas, display various degrees of resentment against all the toilet soaps in question with the one exception of Cashmere Bouquet. To quote the majority of them, the reason for this is 'there is nice profit on Cashmere Bouquet'."

The New York market is one of the richest soap markets,—and one of the most varied, ranging from tenement to luxurious apartment hotel.

The total average sale figures for toilet soaps, show the most productive drug store field for toilet soaps to be in the "high" and "medium" areas. The relative average sales between the 7 better-known brands and the miscellaneous brands are interesting. While the sales of the 7 better-known brands are higher in the "medium" areas than in the "high" areas, the sales of the miscellaneous brands are higher in the "high" areas than in the "medium." The average sales of both the 7 brands and the miscellaneous brands in the "low" areas are far below the "high" and "medium" areas. The

(Turn to Page 73)

Consumption of Laundry Soaps in High, Medium and Low Income Areas in New York

Compiled from Survey by New York Times, September, 1937

	High	*Medium*	*Low*
Number of Stores Surveyed	99	208	364
*Average Sales Per Store**			
Fels Naptha	33	30	14
Ivory (Large)	116	60	20
Ivory (Small)	88	62	25
Octagon	25	39	45
P & G	42	68	30
Kirkman	161	101	35

* Based on total number of stores interviewed in each income group.

New Products

The package for "Soilax" cleanser has just been redesigned for Economics Laboratory, Inc., St. Paul, by Arthur S. Allen. The new carton, on the left, has been modernized and given greater shelf appeal. The color scheme was designed to typify cleanliness.

New 1938 para and naphthalene packets, variously perfumed, now being featured by White Tar Co. in the 5 and 10 chains. Packets are wrapped in colored cellophane to match individual odors.

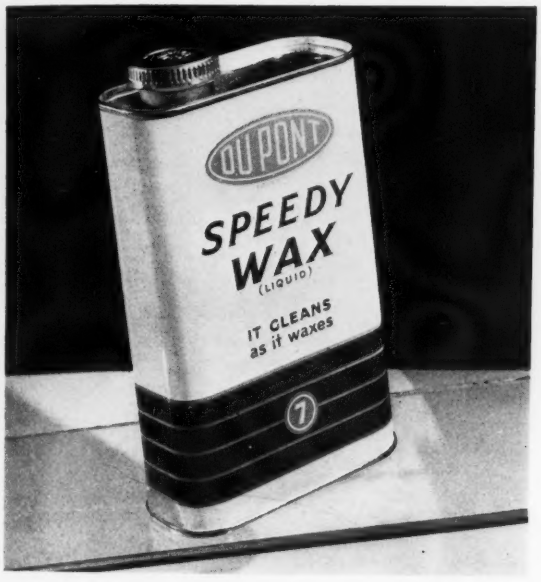
♦

A combination closure and spray attachment is an interesting feature of this container for "Bespray," product of C. M. Kimball Co., Everett, Mass. It is substituted for the original closure when the consumer puts the product in use. Bottle by Owens-Illinois.

and

Packages

This container for Marton Freres salt water soap combines a number of ideas which make it a good example of practical functional designing. Shaker top for shower use. Canvas jacket guards against breakage and prevents slipping.



The new pint can for du Pont's "Speedy Wax," previously available only in the gallon size. This new liquid polish is said to clean and deposit a protective film on the car in one operation. Container by American Can Company.

◆

Expello Corporation's toilet bowl cleaner, "Vanish," was one of the prize winners in the recent All-America Package Competition. Its shape is tall and oval, contrasting with the squat and round containers common for this type product. Can by Crown.

TURNER

CAUSTIC POTASH

CARBONATE OF POTASH

CAUSTIC SODA

CHLORIDE OF POTASH

RED OIL

PETROLATUM **WHITE OILS**

INSECTI-SOL

(Colorless, odorless insecticide base)

Refined by Pennsylvania Refining Co., Butler, Penna.

For 75 years, the House of Turner has been serving users of chemicals.

JOSEPH TURNER & COMPANY

RIDGEFIELD, N. J.

83 EXCHANGE PL.
PROVIDENCE

630 FIFTH AVE., NEW YORK

40TH ST. & CALUMET
CHICAGO

News....

Watkins Buys Property

J. R. Watkins Co., Winona, Minn., household products, recently purchased a plot of ground in St. Louis for the erection of a new $25,000 branch office. The firm now operates a St. Louis branch at 453 North Boyle Avenue.

"Bab-O" in Spring Drive

B. T. Babbitt, Inc., New York, is sponsoring a special "Bab-O" spring promotion drive, in which seed packets are being offered consumers. More than 100 newspapers, several national magazines and the company's radio program will back the offer.

Form Safeway Chemical

W. S. McCall and Jesse Lackman have formed Safeway Chemical Laboratories at 3229 Western Ave., Seattle. The concern will manufacture a complete line of cleansers, to be known as "Clenzall Products". An extensive advertising campaign is being sponsored to introduce the products.

P&G Sponsor "Camay" Contest

Procter & Gamble Co., Cincinnati, is sponsoring a new national advertising contest for "Camay" soap. The contest, which began last month and will run until May 6, calls for a 25-word essay from contestants. Prizes are $1,000 a day and 40 Emerson radios a day for the duration of the contest. Winners are being announced daily over one of the coast-to-coast radio programs sponsored by the company.

Reilly to Head Colgate Sales

J. A. Reilly, for the last two years assistant sales manager of the soap department of Colgate-Palmolive-Peet Co., Jersey City, N. J., has just been named sales manager. Mr. Reilly has been with Colgate-Palmolive-Peet for the past sixteen

J. A. Reilly

years. He began as a display man, and has worked in every branch of the company's national sales organization.

Lever Head Presides at Dinner

Francis D'Arcy Cooper, chairman of Lever Bros. & Unilever, Ltd., London, presided at a conference and dinner held for a delegation of leading Turkish bankers in London recently. The bankers were in London seeking financial aid and technical support for a Turkish program of development, including the construction of a number of large chemical works, to be undertaken during the next five years.

"Oakite" Sales Increase

Oakite Products, Inc., New York, reports that its sales during the "recession" period have increased over last year due to the consistent use of advertising space in newspapers, backed by radio. The company states that it is sponsoring its largest advertising effort in 1938 to offset effects of diminished buying strength.

Buys Kyosai Soap Co.

A certificate to conduct business under the firm name of Snow Queen Soap Co., with a plant at 336 LeRoy Street, Los Angeles, has been issued to the owner, John S. Ando, of Carson Road, Long Beach, Calif., who purchased the business recently from Kyosai Soap Manufacturing Co.

Wants American Soaps

A concern in Stockholm, Sweden, is interested in communicating with American manufacturers of soaps relative to purchase or agency arrangement. Inquiries may be forwarded to the U. S. Bureau of Foreign and Domestic Commerce, Washington, mentioning inquiry No. 5482.

FTC Checks "Sapolio" Claims

Enoch Morgan's Sons Co., New York, has entered into stipulations with the U. S. Federal Trade Commission agreeing to discontinue representing that "Sapolio" powder protects the skin, or that "Sapolio" toilet soap invigorates or stimulates the skin, prevents chapping and removes stubborn stains or hidden discolorations.

Port Sunlight 50 Years Old

Port Sunlight, best-known of Lever Brothers soap plants and famous as a pioneering project in industrial housing, celebrated the 50th anniversary of its founding last month. On March 3, 1888, Mrs. W. H. Lever, whose husband was to become the first Lord Leverhulme, broke the first ground with a silver spade. The original site was on the Cheshire side of the Mersey estuary, not far from Liverpool, and consisted of 56 acres. The name "Sunlight" was selected as most expressive of the association Lever Brothers wished to create for their soaps. The "Port"

was justified by a small tidal creek by which the chief guests at the ground-breaking ceremony arrived by steamer from Liverpool. Very soon Port Sunlight became famed as one of Europe's pioneer industrial developments. Of the original 56 acres, 32 acres were set aside for model homes for Lever workers. They were, Lord Leverhulme said, to be "houses in which our workpeople will be able to live and be comfortable; semi-detached houses, with gardens back and front, in which they will be able to know more about the science of life than they can in a back slum, and in which they will learn that there is more enjoyment in life than in the mere going to and returning home from work, and looking forward to Saturday night to draw their wages." Today the original 56 acres have been extended to over 500 acres and there are four factories. Port Sunlight has the largest private docks in the world, with ships discharging raw materials from the Tropics and the Antarctic and carrying finished goods for world-wide delivery. The first batch of 29 houses has grown to 1,500 with a population of 6,000, all employes. Visitors numbering more than 150,000 were received at Port Sunlight in 1937.

Chicago Group Elects

The annual meeting and election of the Chicago Drug and Chemical Association was held at the Chicago Athletic Association on March 31st. The nominating committee, appointed some time ago by President Frank B. Kirby, offered the following slate: For president—Robert L. Holland; for vice-president—Elmer F. Smith; for secretary—Walter R. Nay; for treasurer—M. F. Charley.

American Soaps Wanted

A concern in Alexandria, Egypt, is interested in communicating with American manufacturers of soaps relative to purchase or agency arrangement. Inquiries may be forwarded to the U. S. Bureau of Foreign and Domestic Commerce, Washington, mentioning inquiry No. 5442.

Oils and Fat Consumption Up

The United States consumed 9,309,000,000 pounds of oils and fats, both domestic and imported, for all purposes in 1937, according to figures recently released by the Bureau of Agricultural Economics at Washington. This represents about 136,000,000 pounds more than in 1936, and a little over 500,000,000 pounds more than in 1929, the peak year prior to 1936. The United States was not alone in the consumption of more fats and oils last year. The United Kingdom, Germany, France, Italy, and the Netherlands likewise reported increases over 1936.

In the United States, there were a number of marked changes in the usage figures for individual fats and oils. The palm-kernel oil consumed was three times greater than in 1936. Consumption figures were reported as 153,000,000 pounds in 1937 and 53,000,000 pounds in 1936. Over 90 per cent of the palm-kernel oil imported is of the inedible type. It would appear, therefore, that increasing quantities of palm-kernel oil have gone into soap. The consumption of inedible tallow and grease, on the other hand, decreased about 66,000,000 pounds as compared with 1936. Teaseed consumption increased 21,000,000 pounds in 1937 as compared to 1936. Coconut oil consumption decreased in 1937 to 493,000,000 pounds, 147,000,000 pounds less than 1936. Palm oil usage rose to 347,000,000 pounds, highest point in the past nine years. The following figures show the consumption figures in millions of pounds of soap fats and oils in 1937 compared to 1936:

	1936	1937
Coconut Oil	640	493
Palm Oil	315	347
Soybean Oil	225	183
Corn Oil	151	166
Castor Oil	60	62
Sesame Oil	54	50
Palm-kernel Oil	50	153
Babassu Oil	36	32
Olive Foots	28	21
Olive Oil	12	6
Teaseed Oil	6	27
Linseed Oil	485	590
Tallow	726	676
Grease	299	283
Inedible Fat	20	16

Final figures on foreign production in 1937 of coconut, palm and palm-kernel oils, olive oil and whale oil are not available yet but preliminary indications are that the production of copra was about the same as last year, that the production of palm oil and palm-kernel oil was somewhat lower in 1937, while olive oil production was up 492,000,000 pounds over 1936. Whale oil production exceeded that of last season, but was not as large as was expected at the beginning of the season.

du Pont Plans Fair Exhibit

E. I. du Pont de Nemours & Co., Wilmington, Del., will have a $500,000 display for the World's Fair, it was announced recently. It will be called "The Wonder World of Chemistry", and will be shown in a functional building designed to represent greatly magnified chemical apparatus. Attendants will explain to visitors the derivation of products in common use and their refinement from raw materials for service in factory, shop and home. Processes to be demonstrated include the production of synthetic musk, from turpentine and vegetable oils, and the manufacture of dyes and pigments from coal tar.

Van Ogden Gets FTC Order

Van Ogden, Inc., Chicago, has been ordered by the U. S. Federal Trade Commission to desist from unfair competitive practices in connection with the sale of soaps and toilet articles. The order directs the company to discontinue the use of the word "Doctor" as part of a trade name, to imply that the products were made under the supervision of a doctor, when such is not the case.

Soap Employment Index

The index of employment in the soap industry for January, 1938, compiled by the U. S. Dept. of Labor, registered 93.9 as compared with 94.6 in December, 1937, 100.3 in January, 1937, and 100 as the three-year average for the period 1923-1925. The payroll index for January, 1938, was 109.1, as compared with 111.2 in December, 1937, and 107.1 in January, 1937.

Toilet Goods Meeting, May 24-26

The annual convention of the Toilet Goods Association will be held on Tuesday, Wednesday, and Thursday, May 24, 25, and 26 at the Biltmore Hotel, New York, according to an announcement from Charles E. Kelly of Hagerty Brothers & Co., New York, chairman of the convention committee. Others on the convention committee include A. C. Burgund, Carr Lowrey Glass Co.; W. D. Barry, Mallinckrodt Chemical Works; Charles Fischbeck, Charles Fischbeck Co.; W. E. Klaas, Brass Goods Co.; M. Lemmermeyer, Aromatic Products, Inc.; W. P. Murray, Continental Can Co.; L. R. Root, Scoville Manufacturing Co.; Karl Voss, Karl Voss Corp. Details regarding the events of the annual convention will be announced at a later date, although it is believed that the plans will call for a theatre party, golf tournament, and annual banquet.

Fritzsche Films Shown

The first showing of a series of natural color motion pictures surveying the essential oil producing fields of Africa by Dr. Ernest Guenther, head of research for Fritzsche Brothers, Inc., New York, was made on March 24th at the New York Athletic Club, New York. Over 150 customers and guests of Fritzsche Brothers attended to see the films, and to hear Dr. Guenther describe his eight-months trip through Africa, Madagascar, and Reunion, from which he recently returned. His description and films covered mainly the production of geranium oil, clove oil, ylang ylang oil, vetiver oil, and other oils of Morocco, Kenya, Zanzibar, and Madagascar. Following the showing of the films, F. H. Leonhardt, president of Fritzsche Brothers, was host at a collation for those who saw the films.

Leon Chiris Visits U. S.

Leon Chiris, administrateur delegue of Antoine Chiris Cie., Paris, and chairman of Antoine Chiris Co., New York, is arriving in New York on April 4 aboard the *Queen Mary*. He will spend about six weeks in the United States in the interests of his firm, and will visit the trade with Jean Gondran, manager of the American Chiris company.

More Japanese Soap In China

Exports of soap by Japan to North China are steadily increasing as a result of the cessation of hostilities in that district, according to reports from Tokyo. Tariff rates on soaps and toilet articles, which have been computed on a weight basis, thus placing cheap Japanese soaps at a disadvantage, are also expected to be lowered. As a result many Japanese soap firms are preparing for a large-scale advance into the North China market with the aim of ousting the British Lever interests and other foreign firms operating there.

Bristol-Myers Net Lower

Bristol-Myers Co., Hillside, N. J., reports a net profit for 1937 of $2,197,947, or $3.21 a capital share. This compares with a net profit of $2,275,251, or $3.31 a capital share, in 1936.

MM&R Name T. B. Tribble

Magnus, Mabee & Reynard, Inc., New York, essential oil house, announced the appointment recently of Talmadge B. Tribble as general manager of the firm's middle-western territory, with headquarters in Chicago. Mr. Tribble was formerly sales manager of the New York division of Sharp & Dohme, Inc. He is the author of several articles on selling which have been published in trade publications. The appointment of Mr. Tribble is in line with plans of Magnus, Mabee & Reynard to enlarge their Chicago branch and add to the territory. The Chicago sales staff will be augmented by the addition of several more salesmen.

W. J. Tavender Dies

Walter J. Tavender, former proprietor of Tavender Soap Co., Utica, N. Y., died in that city recently. He was 78 years old.

Chadwick with L. I. Soap

Elliott F. Chadwick has become associated with the Long Island Soap Co., Brooklyn, in charge of their industrial soap department. Mr. Chadwick who is well known in the soap trade of the New York area, was connected with Armour & Co. for the past eight years in the sale of industrial soaps.

Colgate Sues for Tax Refund

Colgate - Palmolive - Peet Co., Jersey City, N. J., has filed suit against the U. S. Government for refund of excise taxes paid on the processing of coconut oil and other oils which had been refined, deodorized and bleached by the company prior to May 10, 1934, the day the tax became effective.

Speaks at Package Parley

C. S. Schaefer, assistant sales manager, Stokes & Smith Co., Philadelphia, was a speaker at the 8th Annual Packaging Conference and Exposition held last month in Chicago under the sponsorship of the American Management Association. He spoke on "Performance Standards for Packaging Machinery," from the viewpoint of the machinery builder.

Plans European Trip

George V. Branigan, technical director of Ungerer & Co., New York, expects to leave on a European trip early in April. He will visit England, North Africa, Italy, Hungary, France and Holland.

To Hold Whale Oil Catch

Norwegian whaling concerns will not sell any of the oil from this season's catch, according to reports from Oslo. The whale oil now on its way from the Antarctic will be stored in Holland. The reason given is that Japanese sales at $63.75 per ton ruined the market.

Dolly Dimple Labs. Moves

Dolly Dimple Laboratories, Atlanta, have moved to 144 Walker St., S. W. Atlanta. A. C. Holbrook is now associated with the firm in charge of purchasing.

CANDY & CO. "BRIGHT BEAUTY"
CONCENTRATED CREAM FURNITURE POLISH

Offers Four Outstanding Features

1. ECONOMICAL- "Bright Beauty" Concentrated Cream Furniture Polish may be diluted with several times its own volume of water. A little goes a long way.

2. QUICK- Spreads rapidly over any surface . . . quickly buffed to a brilliant lustre.

3. DURABLE- May be re-polished time and again before another application is necessary. Does not easily finger print. Resists moisture and water spotting.

4. "NON-SMOKING"- Will not gather dust or "smoke up". Retains its beautiful gloss without requiring frequent repolishing or cleaning.

SOLD EXCLUSIVELY THROUGH DISTRIBUTORS

"Bright Beauty" Concentrated Cream Furniture Polish is sold exclusively through distributors. It is packed in attractive glass or metal containers under your own label. It is never sold direct to the consuming trade. It is our unalterable policy never to compete with our jobbers.

"Bright Beauty" Furniture Polish is competitively priced yet can be sold so as to allow you a liberal margin of profit. Samples are available to aid you in getting quick distribution among your regular customers.

Send Today for FREE Test Sample

CANDY & COMPANY, Inc.

2515 WEST 35th STREET, CHICAGO, ILL. Wax Specialists for Over 40 Years

Manufacturers of quality grades of Prepared Paste Wax . . . Spirit Liquid Prepared Waxes (buffing type) . . . Powdered Dance Floor Waxes . . . Concentrated Cream Furniture Polish . . . Paste Cleaners . . . Rug Shampoo

E. H. Bronner to Easton

E. H. Bronner is now superintendent in charge of soap production and development at the Easton, Pa., plant of Hercules Powder Co. He was formerly located at the Milwaukee branch of the company.

Soap Vendors Hail Motorists

"On your way, buddy," peremptory admonition of cops everywhere to loiterers is apparently just an idle threat to soap salesmen from Toronto, Canada. In the past few weeks, in spite of orders by local police, enterprising vendors have been standing at highway intersections leading to Montreal and flagging motorists. When a car stops, they open the door, hop in the front seat and virtually force the driver to buy a bar of soap. Motorists duck them at every opportunity.

D-12 Re-elects Trevithick

Committee D-12 on soaps and detergents of the American Society for Testing Materials met at the Hotel New Yorker, New York, March 7 and 8, for the annual meeting and election. Harry P. Trevithick of the New York Produce Exchange, who has served as chairman of the committee since its inception, was again named to this position. The group also re-elected F. W. Smither of the U. S. Bureau of Standards as vice-chairman and B. S. Van Zile, Colgate-Palmolive-Peet Co., as secretary. The officers, together with the following, constitute the advisory board: George E. Hopkins, Bigelow-Sanford Carpet Co.; J. E. Doherty, Lever Bros. Co.; F. Krassner, U. S. Navy Department; J. B. Crowe, Procter & Gamble Co.; M. L. Sheely, Armour & Co.; and W. G. Morse, Harvard University. The last two individuals named are new additions to the advisory board, the other members having served previously.

In the morning session which preceded luncheon on March 8, two new definitions were approved by the group. The official designation of Builder is to be "any material added to soap to augment its efficiency." The approved definition for Detergent is "any material that aids in removing undesirable matter from the surface to be cleaned."

At the luncheon session I. Katz of J. Eavenson & Sons, Camden, N. J., chairman of the committee on straight soaps, reported for his committee, and Frederick Krassner reported for the committee on built soaps. Included in this latter report was a new suggested specification for Powdered Built Soap. Considerable discussion was had on this specification, with particular reference to the titre fat to be used in soaps designed for high temperature washing. Action on the specification was postponed pending revision.

Harry P. Trevithick

Specifications for white floating toilet soap, chip soap, powdered laundry soap and ordinary laundry bar soap were adopted at this meeting.

The completed annual report of committee D-12 will be filed with the American Society for Testing Materials, April 15, prior to the annual meeting of the Society, and following filing will be printed and submitted to letter ballot by committee members.

Cottonseed Oil on Hand

The U. S. Department of Commerce at Washington reports 210,707,937 lbs. of crude cottonseed oil on hand in the United States Jan. 31, 1938, as compared with 146,609,312 lbs. on hand Jan. 31, 1937.

Cleaning Kit Wins Award

Hoover Co., North Canton, O., was awarded the Irwin D. Wolf Trophy in the seventh competition for distinctive merit in packaging sponsored by the American Management Association recently. The award was made for the ensemble carton and cleaning tool kit, designed by Henry Dreyfuss. London House, Inc., New York, won the award for two or more packaging materials with its "London House" jugs and soap set, designed by Miss Stell Ayrshire. S. C. Johnson & Son, Racine, Wis., won the award for the most effective use of typography with "Johnson's Liquid Wax," designed by E. Willis Jones.

Continental Can Names Two

F. G. Searle and F. J. O'Brien were elected to the board of directors of Continental Can Co., New York, last month. C. C. Conway was elected chairman. Other officers elected were: O. C. Huffman, president; J. F. Hartlieb and S. J. Steele, executive vice-presidents; A. V. Crary, I. W. England, M. S. Huffman, F. J. O'Brien, F. G. Searle and J. S. Snelham, vice-presidents; J. B. Jeffress Jr., secretary and treasurer.

Wafer Returns to Work

Joseph M. Wafer, of the Industrial Chemical Sales Division of West Virginia Pulp & Paper Co., New York, returned to his office last month after an absence of several months due to illness.

G. W. Norton Dies

George William Norton, 80, retired soap manufacturer, died at his home in Lexington, Mass., last month.

Bush Joins Ungerer & Co.

Wallace Bush has been added to the sales staff of Ungerer & Co., New York. He will work in the metropolitan New York territory.

Frank E. Reidy Dies

Frank E. Reidy, 55, sales manager for Armour & Co., at Philadelphia, died recently.

J. L. BRENN
OF HUNTINGTON LABORATORIES
says—

Two Sizes
No. 10—16 ounces
No. 12—10 ounces

DENVER TORONTO

HUNTINGTON LABORATORIES, INC
SANITATION PRODUCTS
HUNTINGTON, IND

January 27th, 1938.

Bobrick Manufacturing Corporation,
111 So. Garey Street,
Los Angeles, California.

Gentlemen:

Always having been of the opinion that in business one should be equally as prompt in expressing satisfaction as in making a complaint, I am very happy at this time to tell you what I think of your new #10-A dispenser based on the substantial experience we have already had with it.

The new A valve used in the #10-A dispenser is the most perfect valve mechanically I have ever handled or seen in the 26 years I have been in this business. It has all the features a good dispenser should have for our particular class of trade, namely, schools, railroad stations, public comfort stations and similar places where dispensers get hard use. The beauty of its design is attractive to buyers and of the several hundred of these dispensers we now have in use we have had practically no trouble or complaint and in soap dispensers this is saying a whole lot.

I thank you for your splendid cooperation in perfecting this dispenser and for the prompt service you have been rendering us in supplying us with it.

Yours very truly,
HUNTINGTON LABORATORIES, INC.

J. L. Brenn
President.

J.L.Brenn.
Lo.

These New BOBRICK SOP-O-ZON DISPENSERS

The No. 10 holding a full pint or the No. 12 holding over a quart—more than twice that of any other dispenser on the market—with their gleaming white porcelain on steel finish—their cast bronze cylinders permanently fastened at the bottom and bearing against the wall relieving all strain on the body—their theft proof fastenings to the wall and lock tops make them "ideal" for schools, service stations, bus terminals, railway cars and stations, factories and any other place where a heavy duty indestructible dispenser is so necessary.

They will get and hold customers for you as they are doing for the country's largest soap manufacturers—don't wait—investigate today—write for detailed information, or better still, send for a returnable sample.

BOBRICK MANUFACTURING CORPORATION

111-117 South Garey Street, Los Angeles, Calif.
215 Fourth Avenue, New York City

G. H. Wood & Co., Toronto, Canadian Distributors

Drug Diners Hear Richberg

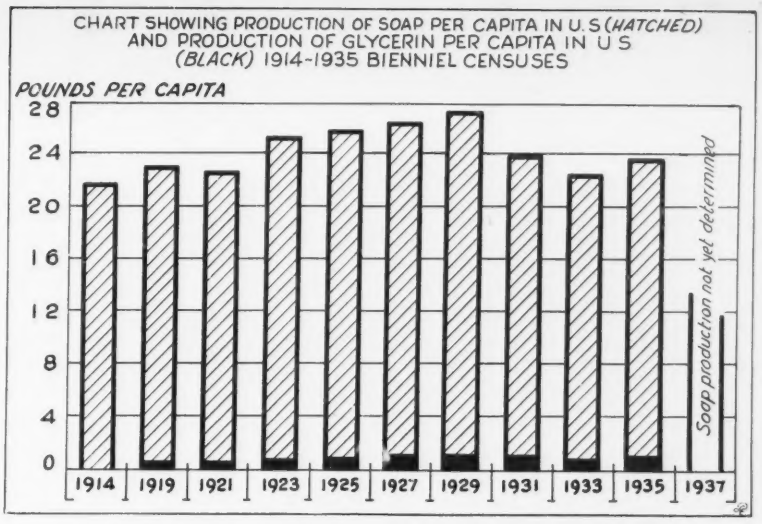
Donald R. Richberg, former administrator of the NRA, was the speaker at the annual banquet of the drug, chemical and allied trades, sponsored by the Drug, Chemical and Allied Trades Section of the New York Board of Trade, at the Waldorf-Astoria Hotel, New York, on March 3. The subject of Mr. Richberg's speech was "A Responsible Democracy". Philip M. Dinkins, vice-president of American Cyanamid Co., and chairman of the executive committee of the Section, presided, and Wheeler McMillen, president of the National Farm Chemurgic Council, was toastmaster.

Agrees to FTC Stipulation

F. W. Fitch Co., Des Moines, Ia., has entered into stipulations with the U. S. Federal Trade Commission agreeing to discontinue statements that "Fitch's Dandruff Remover Shampoo" will rid the hair or scalp of dandruff, keep the hair healthy and impart vitality to lifeless hair. It has also agreed to discontinue advertising that the shampoo prevents falling hair or baldness, unless the claim is limited to excessive falling of the hair and to types of baldness caused by dandruff, dirt or foreign matter, and that Lloyd's of London backs Fitch's guarantee that its preparation will remove dandruff with the first application.

Olive Oil Output Up

Olive oil production for the 1937-38 season just ended is reported to be the largest since 1930, with an aggregate of 2,130,000,000 pounds. According to the International Institute of Agriculture, every olive-growing country produced more than the five-season average from 1931 to 1936. The five chief exporting countries are Spain, Algeria, Tunisia, Turkey and Greece. Italy and Portugal, both of which in some years offer an extensive market for olive oil from the large exporting countries and in others compete on the world market, will this year be exporters, it is reported. The Institute forecasts serious difficulty for the export trade unless the importing countries, of which the largest are the United States, Argentina, France and the United Kingdom, do not import larger quantities than usual.



Soap production per capita of the United States as based on the annual figures of the U. S. Bureau of the Census, showing what is believed to be in some quarters, a declining trend in American soap consumption. Based on independent comments in the soap industry, the figures of the Bureau of the Census on which this chart is based are held to be anything from five to eight per cent low. This, however, has no bearing on the chart as an indicator of the trend in American production. (Copyright, Bureau of Raw Materials for American Vegetable Oils and Fats Industries, Washington, D. C.)

Joins Sprout, Waldron

Morgan L. Woodruff of Evanston, Ill., has been appointed district sales engineer for the Chicago area by Sprout, Waldron & Co., Muncy, Pa., manufacturers of mixing equipment. Mr. Woodruff will cover the states of Wisconsin, Iowa, Illinois, Michigan, and Indiana.

Advertise "Ipana" in Movies

Bristol-Myers Co., Hillside, N. J., is now advertising "Ipana" tooth paste in neighborhood "movie" theaters.

Dr. Reilly with Townsend

Dr. William J. Reilly, formerly with Procter & Gamble Co., Cincinnati, is now with Townsend & Townsend, Inc., advertising research firm, New York.

C-P-P Names Benton & Bowles

Colgate-Palmolive-Peet Co., Jersey City, N. J., has appointed Benton & Bowles, Chicago, Inc., as advertising agency for "Halo", new soapless shampoo, and "Vel", the new soapless suds for fine fabrics. The appointment was effective April 1.

Warner Appoints Bivans

Warner Chemical Co., New York, has announced the appointment of Kenneth R. Bivans as manager of its Chicago office. He succeeds K. L. Carr, who has left the company. Mr. Bivans was formerly with General Chemical Co., New York, and Monsanto Chemical Co., St. Louis.

To Promote "Cuticura"

Potter Drug & Chemical Co., Malden, Mass., has launched a new advertising campaign for "Cuticura" soap and "Cuticura" ointment. More than 400 newspapers and about 20 national magazines will be used.

HOW to improve Detergents and Profits

IS YOUR research department working on a new product? Or have you an established cleaner that you want to improve? The line of P. Q. Silicates of Soda, including sodium metasilicate (Metso Granular) and sesquisilicate (Metso 99) offers you at least a half dozen detergent advantages:

1. *High active alkalinity*
2. *Silica content which restrains corrosive action*
3. *Sustained cleaning activity*
4. *Greater bactericidal effect than other sodium salts*
5. *Free rinsing quality*
6. *Attractive appearance*

SOME P. Q. POWDERED SILICATES

G Brand . . . . . Ratio 1:3.22
GC Brand . . . . . Ratio 1:2
Metso Granular . . Ratio 1:0.97
Metso 99 . . . . . Ratio 3:1.94
(*Ratio of alkali to silica*)

More than one fabricator has said "We're enthusiastic over the sales increase of our silicated cleaner". When can we discuss putting a P. Q. Silicate of Soda to work for you? At least, don't delay in sending for a free copy of Bulletin #172, "P. Q. Silicates of Soda in Lump and Powder Forms".

EST. 1831

REG. U.S. PAT. OFF.

PHILADELPHIA QUARTZ COMPANY

General Offices and Laboratory: 125 S. Third St., Philadelphia. Chicago Sales Office: Engineering Bldg. Distributors in 60 cities. Plants at: Anderson, Ind., Baltimore, Md., Chester, Pa., Gardenville, N. Y., Kansas City, Kans., Rahway, N. J., St. Louis, Mo., Utica, Ill. Sold in Canada by NATIONAL SILICATES LTD., Toronto, Ontario.

P.Q. SILICATES OF SODA

Contracts Awarded

Chicago Soap Awards

Day & Frick, Philadelphia, were awarded contracts on 40,000 cakes of grit soap at 1.7c and 10,000 cakes of grit soap at 2.45c in a recent opening by the U. S. Army Quartermaster at Chicago. On 495,060 cakes of laundry soap, Armour & Co., Chicago, were awarded the contract at 3.53c. On 180,000 cakes of laundry soap, Samuel M. Sher Co., Chicago Heights, Ill., was awarded the contract at 3.5c. On 540 lbs. of chip soap, Swift & Co., Chicago, were awarded the contract at 6.42c. On 5,000 cakes of toilet soap, Armour & Co., Chicago, were awarded the contract at 2.41c.

Philadelphia Soap Awards

Swift & Co., Philadelphia, were awarded contracts on 10,000 cakes of toilet soap at 7.6c and 10,000 cakes of laundry soap at 4c in a recent opening by the U. S. Engineers Corps at Philadelphia. On 4,000 cakes of grit soap, Armour & Co., Philadelphia, were awarded the contract at 7.1c.

Fort Sam Houston Awards

Day & Frick, Philadelphia, were awarded contracts on two lots of grit soap, 7,500 cakes at 3.4c and 7,600 cakes at 2.7c, in a recent opening by the U. S. Army Quartermaster at Fort Sam Houston, Tex. On 256,380 lbs. of laundry soap, National Soap Co., Takoma, Wash., was awarded the contract at 3c.

Philadelphia Polish Award

R. M. Hollingshead Co., Camden, N. J., was awarded a contract on 2,000 pts. of metal polish at $128 in a recent opening by the Navy Yard at Philadelphia.

Brooklyn Soap Awards

John T. Stanley Co., New York, was awarded a contract on 600,000 lbs. of laundry soap at 3.49c in a recent opening by the U. S. Army Quartermaster at Brooklyn. On 45,000 cakes of grit soap, Day & Frick, Philadelphia, were awarded the contract at 2.95c.

U. S. Post Office Awards

Armour & Co., Chicago, were awarded a contract on 80,000 lbs. of laundry soap at 3.46c in a recent opening by the U. S. Post Office Dept. at Washington. On 3,500 lbs. of grit soap, John T. Stanley Co., New York, was awarded the contract at 7.74c. On 600 gals. of bronze polish, Industrial Distributors, New York, were awarded the contract at $1.08. On 3,500 gals. of liquid floor wax, R. M. Hollingshead Corp., Camden, N. J., was awarded the contract at 32c.

Fort Peck Soap Awards

Armour & Co., Chicago, were awarded contracts on 20 cases of toilet soap and 600 lbs. of hand grit soap in a recent opening by the U. S. Army Engineer Corps at Fort Peck, Mont., with quotations of $56 and $49.80 respectively. On 10,000 lbs. of sweeping compound, Griggs Cooper & Co., St. Paul, were awarded the contract with a quotation of $206.

Fort Mason Soap Award

Colgate - Palmolive - Peet Co., Jersey City, N. J., was awarded a contract on a quantity of laundry soap at 2.94c, in a recent opening by the U. S. Army Quartermaster at Fort Mason, Calif.

Low Floor Wax Bidder

Baltimore Paint & Color Works, Baltimore, was low bidder on 600 lbs. of floor wax at 13.5c in a recent opening by the Marine Corps Quartermaster at Quantico, Va.

Fort Sam Houston Awards

Kirkman & Son, Brooklyn, were awarded a contract for 264,000 lbs. of laundry soap at 3.75c in a recent opening by the U. S. Army Quartermaster at Fort Sam Houston, Tex. On 14,587 cakes of toilet soap, Colgate - Palmolive - Peet Co., Jersey City, N. J., was awarded the contract at 3.2c. On 6,200 cakes of toilet soap, Armour & Co., San Antonio, Tex., were awarded the contract at 2.7c. On 15,000 cakes of grit soap, Day & Frick, Philadelphia, were awarded the contract at 3.4c.

Veterans Administration Awards

Harley Soap Co., Philadelphia, was awarded contracts on two lots of green soap, 15,000 lbs. at a quotation of $1,440 and 5,000 lbs. at $480, in a recent opening by the Procurement Division of the Veterans Administration at Washington.

Low Treasury Dept. Bids

Armour & Co., Chicago, were low bidders on 14,400 lbs. of laundry soap at 2.8c in a recent opening by the Procurement Division of the U. S. Treasury Dept. at Washington. On 93,750 lbs. of toilet soap, S. Strunz & Son were low bidders at 5.9c. On 7,200 lbs. of scouring powder, American Soap & Washoline Co., Cohoes, N. Y., was low bidder with a price of 2.3c. On 118,000 lbs. of laundry soap, Kirkman & Son, Brooklyn, and Armour & Co., Chicago, were both low bidders with quotations of 3.47c. On 1,320 gals. of toilet soap, Harley Soap Co., Philadelphia, was low bidder at 24.9c. On 360 gals. of disinfectant, Murphy Products Co., Washington, was low bidder at 61c.

Nathan R. C. Fretz Weds

Announcement was made last month of the marriage of Nathan R. C. Fretz of Dodge & Olcott Co., New York, and Miss Eunice Farnsworth Patten of Skowhegan, Me. Mr. Fretz is special representative for the products of Fabriques de Laire and other perfume materials handled by Dodge & Olcott.

Kurt Walwer Dies

Kurt Walwer, 46, vice-president and director of Pfaltz & Bauer, Inc., New York, died last month. He is survived by his wife, two sons and his mother.

PERFUME PARA

...A BACKGROUND for BIGGER SALES

OPTIMISTIC of the future? Certainly the manufacturer of para products has every reason to be, with paradichlorbenzene's remarkable effectiveness lending powerful impetus to sales. Even so, he cannot afford to disregard this one fact: That bigger para sales can be developed ONLY against a background of efficient perfuming.

With that thought in mind, it seems timely to mention our laboratory's intensified research into this subject during the past few years. As one result of this work, we offer a type of perfume that is entirely immune to the destructive effect of nascent chlorine liberated by the diffusion of paradichlorbenzene. Its pleasant fragrance, therefore, provides complete and lasting coverage of the natural para odor. To those who are genuinely interested, we shall be glad to demonstrate the effectiveness of this material in a very practical way. Kindly address us on your letterhead.

PARAPASTELS

YOU may like to investigate also the economy and convenience of using PARAPASTELS. This group of specialties includes twenty-four carefully selected perfume-color combinations. Their use simplifies production and cuts costs by reducing the perfuming and tinting of your para and naphthalene products to a single operation. A fine selection of appropriately tinted floral and bouquet type PARAPASTELS is available. A complete list with prices will be forwarded to interested manufacturers upon request.

FRITZSCHE *Brothers, inc.*

816 WEST 8TH STREET LOS ANGELES, CAL.
Proprietors of PARFUMERIES de SEILLANS Seillans, France
FRITZSCHE BROTHERS, of Canada, Ltd., 77-79 Jarvis St., Toronto, Canada

PORT AUTHORITY COMMERCE BLDG.
76 NINTH AVENUE, NEW YORK, N. Y.
118 WEST OHIO ST CHICAGO, ILL

A *Fritzsche* PRODUCT for EVERY PURPOSE . . .

- **ESSENTIAL OILS**

  Your basic materials should be the finest that modern methods and scientific skill can produce. In using FRITZSCHE'S Essential Oils you are assured matchless purity and dependability.

- **AROMATIC CHEMICALS**

  Large selection and superlative quality characterize the materials in this group. Use them for finer aromatic effects and for greater economy.

- **FIXATIVES**

  We carry a complete line of fixatives, including Rose Crystals, one of the best all-around fixatives, also a group of Artificial Animal Scents—Musk, Civet, Castoreum and Ambergris—especially adaptable to soap making. Send for literature.

- **ANTI-OXIDANTS**

  These newly developed preservatives for soaps, animal and vegetable fats and oils are highly important to the soap manufacturer. Write us for full details concerning Oxidex.

- **BATH SALT PERFUMES**

  Combining perfume and color, our delightful Bath Perstels greatly simplify and facilitate the process of manufacture. Very economical. Complete information and list of blends will be sent upon request.

- **INSECTICIDES AND DISINFECTANTS**

  All materials offered by us under this heading are the results of years of research applied to this increasingly important phase of perfuming. Selection from the FRITZSCHE catalog assures uniform and unvarying quality of odor.

- **DEODORIZING COMPOUNDS**

  Technical products such as para blocks, naphthalene, cleansers, waxes, polishes, solvents, diluents, etc., require good, dependable deodorizing compounds in their formulae. For effective, low cost coverage we offer and recommend Neutroleum, Safrella, Javollal, Methalate "C", and others. Send for particulars.

- **TOILET SOAP COMPOUNDS**

  Perfumes in this group have been specially prepared to meet the exacting demands of soap manufacture. Exquisite scents at a minimum cost. Consult our catalog.

- **LIQUID SOAP AND SHAMPOO PERFUMES**

  These perfumes are highly soluble and mix readily with liquid soaps. Simple to use, cost limits and strength of odor desired determine quantity required.

- **DENTAL AND ORAL FLAVORS**

  These flavors are of a special character, skillfully blended to impart pleasant, clean, refreshing taste effects. We are prepared also to create special flavor blends according to your specifications and for your exclusive use. Consult us freely.

- **SOAP COLORS**

  We supply soap colors to produce any desired tint. Send us description or sample of color to be matched for our specific recommendations.

Colgate Wins Injunction

Colgate-Palmolive-Peet Co., Jersey City, N. J., has obtained a permanent injunction restraining Courtesy Drug Co., New York, from selling Colgate toilet articles below established minimum retail prices. The injunction resulted from specific charges filed against the retail store in New York Supreme Court recently.

Emptage with Mary Pickford

Harold J. Emptage, for seven years general manager, Jergens-Woodbury, Cincinnati, is now vice-president of Mary Pickford Cosmetics, Inc., New York.

"Bims" Announce Golf Schedule

"Bims", recently formed organization among the executives of the toilet goods industry in the New York district, has announced dates for five 1938 golf outings. The dates are: Weeks of May 9, June 20, July 18, August 22, with the finals scheduled for September 22. Announcement of the clubs where the tournament are to be played will follow soon. It is reported that about 200 applications for membership in "Bims" have been received and acted upon. Membership is by invitation only.

Agrees to FTC Stipulation

Dr. Johann Strasska, Inc., Los Angeles, has entered into stipulations with the U. S. Federal Trade Commission agreeing to discontinue advertising that "Strasska Toothpaste" tones and stimulates the gums and gives the user perfect white teeth or firm, healthy gums; or that it sweetens the breath for hours and polishes by improving the natural luster of the enamel.

Camp Addresses Soap Group

Frank B. Camp of the 100% Endorsement Association was the guest speaker at the March 15th meeting of the Chicago Perfumery, Soap and Extract Association. Mr. Camp went into considerable detail regarding the possibilities of the repeal of the federal excise tax on toilet preparations.

You can save on

PERFUMING COSTS

. . . and still maintain quality

BERGAMOT ARTIFICIAL NORDA is the answer. It meets the most exacting requirements . . . and in view of the present high price of the natural oil, BERGAMOT ARTIFICIAL NORDA offers a material saving in perfuming cost without sacrifice of quality.

Ask NORDA for further details.

Norda

ESSENTIAL OIL and CHEMICAL COMPANY

Chicago Office
325 W. Huron St.

Los Angeles Office
685 Antonia Ave.

St. Paul Office
Pine and E. 3rd St.

Canadian Office
119 Adelaide St., W., Toronto

New York Office
601 West 26th St.

Southern Office
Candler Annex Bldg., Atlanta, Ga.

New Trade Marks

The following trade-marks were published in the March issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

R-A-K—This in solid letters describing insecticide. Filed by R-A-K Laboratories, Philadelphia, Dec. 15, 1937. Claims use since Apr. 1, 1937.

ARCABE—This in solid script describing bath salts. Filed by Arcabe, Inc., New York, Dec. 14, 1937. Claims use since July, 1932.

LYPTOGRENE — This in solid letters describing application for Athlete's Foot. Filed by Lyptogrene Co., Los Angeles, Nov. 17, 1937. Claims use since Nov. 17, 1937.

ALOPECIA—This in solid letters over reverse plate in shape of triangle with old style letter S in center, describing application for Athlete's Foot. The word "Alopecia" is disclaimed apart from the mark. Filed by A. P. Sardou Laboratories, Albany, N. Y., Nov. 18, 1937. Claims use since Sept., 1929.

KO—This in solid letters with fanciful drawing of Indian squaw standing beside tall cactus plants in the desert, describing furniture polish. Filed by Kactus Oil Products Co., Denver, Colo., Dec. 18, 1937. Claims use since Nov. 1, 1937.

ARESKAP—This in solid letters describing wetting agent. Filed by Monsanto Chemical Co., St. Louis, Jan. 3, 1938. Claims use since Sept. 10, 1934.

ARESKET—This in solid letters describing wetting agent. Filed by Monsanto Chemical Co., St. Louis, Jan. 3, 1938. Claims use since Aug. 3, 1934.

ARESKLENE—This in solid letters describing wetting agent. Filed by Monsanto Chemical Co., St. Louis, Jan. 3, 1938. Claims use since Aug. 22, 1937.

CHINCHOLA—This in solid letters describing insecticide. Filed by Hammond Paint and Chemical Co., Beacon, N. Y., Jan. 11, 1938. Claims use since Nov. 10, 1936.

MOTH-O-RINZ—This in solid letters describing moth repellent. The word "Rinz" is disclaimed apart from the mark. Filed by Moth-O-Rize Co., Chicago, June 18, 1937. Claims use since Sept. 10, 1936.

MOTH-O-SPRA—This in solid letters describing moth repellent. The word "Spra" is disclaimed apart from the mark. Filed by Moth-O-Rize Co., Chicago, June 18, 1937. Claims use since Sept. 10, 1936.

TEPPER'S ANTISEPTIC MEDICATED HAND LOTION—First, fourth and fifth words in solid letters, second and third words in outline letters superimposed on geometric design, describing antiseptic. All words are disclaimed except as shown in the mark. Filed by J. Saul Tepper, Baltimore, Md., June 29, 1937. Claims use since May 3, 1937.

COMPLETEX—This in solid letters describing insect powder. Filed by Usalco Merchandising Co., New York, Aug. 11, 1937. Claims use since July 20, 1937.

SOLVENTOL—This in solid letters describing cleaning compound. Filed by Solventol Chemical Products, Inc., Detroit, Oct. 14, 1936. Claims use since Aug. 20, 1932.

SOLVENTOL ANTISEPTIC SEMI-DRY CLEANING—This in solid letters within oval describing cleaning compounds. All words except "Solventol" are disclaimed apart from the mark. Filed by Solventol Chemical Products, Inc., Detroit, Oct. 14, 1936.

RUNEX—This in solid letters with drawing of donkey kicking up dirt lettered "Kicks Dirt," and with a caption reading "The Soap That Does The Work," describing soap powder. No claim is made to the words contained in the caption. Filed by Joe Perryman, Columbia, Ky., Jan. 5, 1937. Claims use since Dec. 8, 1936.

DOB-ENE LENS CLEANER—This in solid letters within rectangle describing cleaner for glass surfaces. The words "Lens Cleaner" are disclaimed apart from the mark. Filed by Dobene Sales Co., New York, Aug. 14, 1937. Claims use since May 12, 1936.

BARRETT—This in stencilled letters describing liquid solvent. Filed by Barrett Co., New York, Sept. 7, 1937. Claims use since 1906.

KILFLEA—This in solid letters with drawing of bulldog describing animal treating soaps. Filed by Geo. W. Clayton Co., Chicago, Sept. 22, 1937. Claims use since 1907.

TAPS "LAST CALL"—This in eccentric solid letters with drawing of two soldiers, one playing bugle and other piling dirt on cross-marked graves, describing insecticides. Filed by Pacific Guano Co., San Francisco, Dec. 12, 1935. Claims use since Jan. 1, 1935.

WARSZAWIANKA—This in solid letters describing shampoos. Filed by D. Wroblewski & Co., Brooklyn, Oct. 6, 1937. Claims use since June 1, 1914.

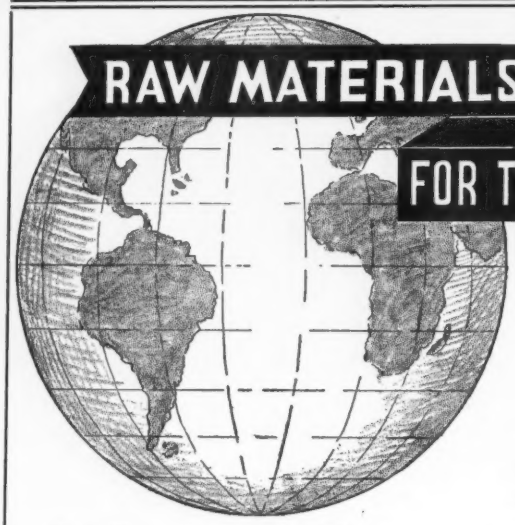
WONDER BOY—This in outline letters describing water softener. Filed by Phosphate Mining Co., New York, Nov. 9, 1937. Claims use since Oct. 28, 1937.

PENETONE—This in semi-solid letters describing cleaning fluid. Filed by La Maison Products, Inc., New York, Jan. 10, 1938. Claims use since Nov. 30, 1937.

ROTO-SPRA—This in solid letters describing insecticides. Filed by Sherwin-Williams Co., Cleveland, Dec. 10, 1937. Claims use since Oct. 22, 1937.

OLD 97—This in solid letters with drawing of old-fashioned locomotive, describing treatment for Athlete's Foot. Filed by Dixie Specialty Co., Tampa, Fla., Dec. 10, 1937. Claims use since Sept. 1, 1937.

GILLETTE — This on reverse plate in shape of parallelogram with arrow running through the center,



RAW MATERIALS FOR THE SOAP INDUSTRY FROM ALL PARTS OF THE WORLD

OILS FATS
CHEMICALS
FATTY ACIDS

1838—1938

100 years of honest trading without misrepresentation have proven to the consuming trade the dependability of the quality of the goods we have to offer.

Castor Oil
Cocoanut Oil
Corn Oil
Cottonseed Oil
Palm Oil
Palm Kernel Oil
Olive Oil

Olive Oil Foots
Peanut Oil
Perilla Oil
Rapeseed Oil
Sesame Oil
Soya Bean Oil
Teaseed Oil

Fatty Acids
Lard Oils
Neatsfoot Oil
Oleo Stearine
Stearic Acid
White Olein

Tallow
Grease
Lanolin
Caustic Soda
Soda Ash
Caustic Potash
Carbonate Potash
Sal Soda

Modified Soda
Silicate Soda
Metasilicate
Tri Sodium Phosphate
Di Sodium Phosphate
Chlorphyll
"CEREPS" Superfatting Agent

WELCH, HOLME & CLARK CO., Inc.
563 GREENWICH STREET ESTABLISHED 1838 NEW YORK CITY

Reilly

CRESOL
CRESYLIC ACID
CRESOL U.S.P.
TAR ACID OILS
NAPHTHALENE
XYLENOL

• For nearly forty years manufacturers of soaps and disinfectants have found REILLY a dependable source for coal tar products.

15 PLANTS TO SERVE YOU

REILLY TAR & CHEMICAL CORPORATION
Executive Offices: Merchants Bank Building, Indianapolis, Indiana
2513 SO. DAMEN AVENUE, CHICAGO, ILLINOIS 500 FIFTH AVENUE, NEW YORK, N. Y. ST. LOUIS PARK, MINNEAPOLIS, MINN.

describing shampoos. Filed by Gillette Safety Razor Co., March 12, 1937. Claims use since March 9, 1937.

ETSOL—This in solid script within oval describing solvent compound. Filed by Etsol Synthetic Products, Detroit, Jan. 30, 1937. Claims use since March 1, 1936.

FOR-A-SHAVE—This in solid letters within geometric design describing brushless shaving cream. The words "For-A-Shave" are disclaimed apart from the mark. Filed by For-A-Shave Co., Albert Lea, Minn., July 20, 1937. Claims use since May 5, 1937.

CREAM OF OATMEAL—This in solid letters describing soap. The word "Oatmeal" is disclaimed apart from the mark. Filed by Lloyd Soap Co., New York, July 30, 1937. Claims use since June 17, 1937.

"LIMPIA-SOLO"—This in solid letters describing soap. Filed by Holbrook Mfg. Co., Jersey City, N. J., Dec. 9, 1937. Claims use since Jan. 1, 1895.

BATH TIME—This in solid letters describing soaps. The word "Bath" is disclaimed apart from the mark. Filed by Kerk Guild, Inc., Whitesboro, N. Y., Dec. 17, 1937. Claims use since Nov. 8, 1937.

FROTH—This in outline letters on drawing of bubbles with the words "Clean with the Bubbles!" The word "Clean" is disclaimed apart from the mark. Filed by Winthrop and Ward, Inc., New York, Dec. 21, 1937. Claims use since Feb. 25, 1937.

HANDSOME IS AS HANDSOME DOES—This in solid letters describing soaps. Filed by Shulton, Inc., New York, Dec. 16, 1937. Claims use since April 2, 1937.

K-G—This in solid letters describing antiseptic. Filed by Georgia Remedy Co., Covington, Ga., Jan. 5, 1937. Claims use since 1884.

DOWNITRO—This in solid letters describing insecticides. Filed by Dow Chemical Co., Midland, Mich., Dec. 28, 1937. Claims use since Dec. 7, 1937.

KIL-ODA—This in solid letters describing disinfectants. Filed by Deodor-X-Corp., Boston, Jan. 12, 1938. Claims use since Jan. 5, 1938.

ADCO—This in solid letters with drawing of parrot describing insecticides. Filed by American Disinfecting Co., Sedalia, Mo., Dec. 10, 1937. Claims use since 1925.

PONCYANA—This in solid letters describing shampoos. Filed by Ardell Ames, New York, Dec. 16, 1937. Claims use since Dec. 8, 1937.

INFATUATION—This in solid letters within rectangle describing shampoos. Filed by Maison Joubert, Inc., New York, Dec. 21, 1937. Claims use since Dec. 14, 1937.

BARBARA LEE—This in solid script describing shampoos. Filed by Leroy H. Korb, Newark, N. J., Dec. 27, 1937. Claims use since April 1932.

ARTINT SHAMPOO — This in solid letters describing shampoos. The word "Shampoo" is disclaimed apart from the mark. Filed by Victor M. Rubon, San Francisco, Sept. 18, 1937. Claims use since Aug. 2, 1937.

JIM-DAISY—This in solid letters describing treatment for Athlete's Foot. Filed by J. D. Compound Co., Lake Forest, Ill., Oct. 23, 1937. Claims use since June 28, 1937.

Trade Marks Granted

354,311. Soaps. Wm. T. Knott Co., New York. Filed Sept. 4, 1937. Serial No. 397,123. Published Nov. 23, 1937. Class 4.

354,317. Soap Chips. R. H. Macy & Co., Inc., New York. Filed Sept. 9, 1937. Serial No. 397,261. Published Nov. 9, 1937. Class 4.

354,338. Liquid Cleanser. Midland Chemical Laboratories, Inc., Dubuque, Iowa. Filed Sept. 18, 1937. Serial No. 397,545. Published Nov. 30, 1937. Class 4.

354,433. Insecticides. Reefer-Galler, Inc., New York. Filed Oct. 23, 1936. Serial No. 384,715. Published Nov. 23, 1937. Class 6.

354,454. Shampoo. Sasa Products Co., Portland, Ore. Filed March 22, 1937. Serial No. 390,392. Published Nov. 23, 1937. Class 6.

354,474. Metallic Soaps. Metasap Chemical Co., Harrison, N. J. Filed May 21, 1937. Serial No. 393,083. Published Nov. 9, 1937. Class 6.

354,475. Roach Powder. Kraus Chemical Works, Brooklyn. Filed May 22, 1937. Serial No. 393,137. Published Nov. 9, 1937. Class 6.

354,487. Soap. Pro-phy-lactic Brush Co., Northampton, Mass. Filed June 22, 1937. Serial No. 394,383. Published Nov. 30, 1937. Class 4.

354,495. Washing Fluids. Charles J. Cinsolo, Deer Park, Ohio. Filed July 3, 1937. Serial No. 394,882. Published Nov. 23, 1937. Class 6.

354,508. Insecticide. Soy Bean Processing Co., Waterloo, Ia. Filed July 21, 1937. Serial No. 395,491. Published Nov. 9, 1937. Class 6.

354,541. Insecticide. Kilgore Development Corp., Washington. Filed Aug. 30, 1937. Serial No. 396,923. Published Nov. 9, 1937. Class 6.

354,545. Insecticide. It-Flops Mfg. Co., Brooklyn. Filed Sept. 2, 1937. Serial No. 397,032. Published Nov. 9, 1937. Class 6.

354,573. Antiseptic. Albert Minks, Elmwood Place, O. Filed Sept. 15, 1937. Serial No. 397,451. Published Nov. 23, 1937. Class 6.

354,583. Water Softener. Purex Corp., South Gate, Calif. Filed Sept. 18, 1937. Serial No. 397,549. Published Nov. 23, 1937. Class 6.

354,590. Insect Repellent Regnew Laboratories, Madison, Wis. Filed Sept. 21, 1937. Serial No. 397,633. Published Nov. 23, 1937 Class 6.

354,697. Antiseptic Powder Ezo-Tex Laboratory, Milwaukee Filed April 8, 1937. Serial No. 391,093. Published Dec. 7, 1937 Class 6.

354,724. Insecticide. California Spray-Chemical Corp., Richmond, Calif. Filed Aug. 23, 1937. Serial No. 396,667. Published Dec. 7, 1937. Class 6.

354,765. Germicide. A. & M. Products Co., Stillwater, Okla. Filed Oct. 2, 1937. Serial No. 398,027. Published Dec. 7, 1937. Class 6.

RED OIL *and* *Pale Oleine*

In non-returnable drums
Correct quality at competitive prices
Send us your inquiries and specifications

•

OTHERS of Our Many Specialties

ISCO Ferric Chloride
Crystals 60%

ISCO Chloride of Lime
35/37% available Chlorine

ISCO Caustic Potash
various forms

ISCO Carbonate of Potash
all forms

•

BEESWAX—
Pure Yellow Refined. Pure White Sunbleached

CARNAUBA WAX—
Pure Refined. Flake, as well as Lump Form

CANDELILLA—
Refined—also in Flake and Lump Form

Samples, quotations and further information gladly sent on request.

•

INNIS, SPEIDEN & CO.
Manufacturers and Importers
117 Liberty Street New York
BOSTON · PHILADELPHIA · CLEVELAND · CHICAGO
GLOVERSVILLE, N. Y.
FACTORIES: JERSEY CITY, N. J., NIAGARA FALLS, N. Y.

Efficient and clean

Liquids—light or heavy—flow freely from this Por-Spout, and the stream can be accurately controlled. The Hinged Spring Dust Cover flips back, completely exposing the entire spout for FULL POURING VISIBILITY. It snaps back in closed position fully covering the spout and keeping it clean. The Swivel Spout turns back into the proper recess in the cover when not in use—out of the way for stacking and handling.

Ideal for Liquid Soaps, Shampoo Bases, and Insecticides.

Your customers will like this handy, practical Por-Pail. Put it on your Sales Staff now.

Request sample and prices of the efficient SWIVEL-SPOUT POR-PAIL with Hinged Spring Dust Cover—no obligation to you.

WILSON & BENNETT MFG. CO.
6528 SO. MENARD AVE., CHICAGO
Phone: PORtsmouth 8100
JERSEY CITY, N. J.
Phones: Delaware 3-4700—Cortlandt 7-0231
NEW ORLEANS, LA.
Phone: Galvez 2171

Three Modern Factories—Sales Offices and Warehouses in Principal Cities.

Raw Material Markets

(As of March 28, 1938)

NEW YORK—Quotations on raw materials in general for the soap industry continued in a downward trend during the period just closed. The market reflected depressed business conditions at home and unfavorable developments in political affairs abroad. Consumers expressed very little buying interest, purchases still being limited in many cases to small lots for immediate needs. There was a fair movement of some commodities to consumers, but only on contracts previously placed. Coconut oil, grease, olive oil and palm-kernel all dropped 1/8c to 3/4c per pound. In the market for essential oils the trend of prices was also downward. Geranium oil, both African and Bourbon, were off from 15c to 45c per pound, and Messina lemon oil declined 20c per pound.

OILS AND FATS

Coconut Oil

The market for crude coconut oil was fairly strong during the first week of the period just closed and advanced 1/4c per pound. European interests were reported to be buying in large quantities. The upward trend was short-lived, however. Local consumers remained indifferent and were disposed to remain out of the market, although they are believed to be carrying small supplies. The downward course of prices for various other fats and oils was held responsible for their apathy. By the close, quotations for crude coconut oil had registered a net drop of 1/8c per pound.

Cottonseed Oil

A generally firm tone was reported in Southern markets for crude cottonseed oil. Mills were reported to be sold ahead and not in a position to offer in an important way for early delivery. Commission houses were said to be buying in advance for consumers who are bullish on prices in the long run due to the prospective curtailment of cotton production during the coming season. Crude cottonseed oil was up 1/8c per pound at the close. Along with cottonseed, crude corn oil moved upward 1/4c per pound.

Olive Oil

Quotations on olive foots were down 1c at the close of this period. Denatured oil was down 7c per gallon. According to a report from the International Institute of Agriculture at Rome, the 1937-38 season for olive oil, just finished, is the largest since 1930. The aggregate production for all the olive-growing countries is put at 2,130,000,000 pounds. It is also reported that some of the olive-growing countries which in the past had found it necessary to import oil for home consumption, would, this year, become exporters.

Palm Oil

Prices on both palm oil and palm-kernel were reduced 1/8c to 1/4c per pound, owing to weakness in various other commodities. Offerings were reported as comparatively light.

Tallow

Large buyers in the soap industry continued to hold aloof in the tallow market during the period just closed. Inquiries were for small or moderate quantities with buyers purchasing only for immediate needs. Quotations were down 1/4c to 1/2c per pound. American consumption of inedible tallow in 1937, according to official statistics, was 676,000,000 pounds against 726,000,000 in 1936. The decline in the price of tallow was influential in the drop of 3/8c per pound in the price of grease.

PERFUMING MATERIALS

Geranium Oil

Although prices were considered to be so low as to make further reduction in replacement costs of geranium oil almost impossible, the competition which developed on spot stocks during this period was reflected in a lowering of local quotations to the basis of $3.50 to $4.50 per pound on Algerian, and to $3.20 to $3.80 on Bourbon oil. A weakness in exchange, making import costs more favorable, created the competition.

Lemon Oil

Spot quotations on Messina lemon oil were down to $3.25 to $3.90 per pound. Even lower prices were reported but sellers of standard quality material said that the lowest of replacements costs would not justify such quotations. The price tendency in Italy appeared to be downward. California oil remained firm.

MISCELLANEOUS

Pyrethrum Concentrate

Pyrethrum concentrate registered another advance during this period. Quotations stood at $6.40 to $6.75 per gallon on 20 to 1 concentrate, and $9.60 to $9.95 on 30 to 1 concentrate. Poor quality flowers received in recent shipments, making it necesary to use more flowers, and higher importing costs were reasons for the higher quotations.

Waxes

A change in the agent representing the Mexican producers brought about an arbitrary advance in the price of candelilla wax, and turned dealers to buying spot lots rather than import parcels at the higher rate. There was little activity, however, on the part of manufacturing consumers. Under keen competition carnauba wax dropped 1/2c, and it seemed likely that quotations would be shaded further on spot lots.

KRANICH SOAPS

PURE POWDERED SOAPS

Castile, U.S.P. **Coconut, Pure** **White Neutral**
Palm, Pure **Castor, Pure**

POTASH SOAPS

Complete line of Shampoos, Shampoo Bases, Liquid Soaps, Oil Soaps, Pine Scrub and Automobile Soap.

For the Trade

KRANICH SOAP COMPANY, INC.
54 Richards Street **Brooklyn, N. Y.**

RAW MATERIALS

ALCOHOL
AMMONIA
BLEACHING POWDER
BORAX
BICARBONATE OF SODA
CARBON TETRACHLORIDE
CALCIUM CHLORIDE
CAUSTIC SODA
CAUSTIC POTASH
DYES
DISODIUM PHOSPHATE
GLAUBERS SALTS
GLYCERINE
METASILICATE
OXALIC ACID
POTASSIUM CARBONATE
SAL AMMONIAC
SALT
SAL SODA
SILICATE OF SODA
SODA ASH
TRISODIUM PHOSPHATE

GLISYN

Inquiries solicited on this low price glycerine replacement.

Every raw material necessary for the manufacture of soap and allied products is carried in stock, and available at the right price for immediate delivery to your door.

OLIVE OIL FOOTS **COCOANUT OIL**
OLIVE OIL **TALLOW**

CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID
RED OIL
OLIVE OIL
OLIVE OIL FOOTS
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN
SALAD OIL
SOYA BEAN OIL
SESAME OIL
TEASEED OIL
WHITE OLEINE
FATTY ACIDS
STEARINE
STEARIC ACID
GREASE
TALLOW

CAUSTIC SODA **iEi** **CAUSTIC POTASH**

Direct New York Telephone CHickering 4-7533 Members New York Produce Exchange

DRUMS
TANK CARS

EASTERN INDUSTRIES, INC.

Vegetable Oils, Animal Oils, Fats, Chemicals
Ridgefield, New Jersey Telephone MOrsemere 6-4870

TANK
WAGONS

Raw Material Prices

(As of March 29, 1938)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .05¾	$ .06¼
Acid, Boric, bbls., 99½%	ton	95.00	105.00
Cresylic, drums	gal.	.89	.93
Low boiling grade	gal.	.92	.96
Oxalic, bbls.	lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17½	.19
Alcohol, Ethyl. U. S. P., bbls.	gal.	4.14	4.19
Complete Denat., SD 1, drums, ex.	gal.	.33	.38
Alum. Potash lump	lb.	.036	.039
Ammonia Water, 26°, drums	lb.	.02¼	.02½
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bentonite 1, works	ton	—	16.00
Bentonite 2, works	ton	—	11.00
Bleaching Powder, drums	100 lb.	2.25	3.35
Borax, pd., cryst., bbls., kegs	ton	47.00	67.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
L. C. L.	lb.	.07	.08
Caustic, see Soda Caustic. Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.12	.12½
Creosote Oil	gal.	.13½	.14½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls.	lb.	.05¾	.06¼
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.15½	.18
Dynamite. drums	lb.	.15½	.16
Saponification, drums	lb.	.10½	.11
Soap, lye, drums	lb.	.09½	.10
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	—	2.45
Mercury Bichloride, kegs	lb.	1.15	1.30
Naphthalene, ref. flakes, bbls.	lb.	.07¼	.07½
Nitrobenzene (Wyrhane) drums	lb.	.07¼	.09
Paradichlorbenzene, bbls., kegs	lb.	.12½	.15½
Petrolatum, bbls. (as to color)	lb.	.02¾	.08⅛
Phenol (Carbolic Acid), drums	lb.	.13½	.14½
Pine Oil, bbls.	gal.	.59	.65
Potash, Caustic, drums	lb.	.06¼	.06½
Flake	lb.	.07	.07¼
Potassium Carbonate, solid	lb.	.06½	.06¾
Liquid	lb.	.03½	.03¾
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	4.75	6.12½
Grade K to N	bbl.	6.12½	6.45
Grade WG and X	bbl.	7.15	7.75
Wood FF Spot	bbl.	5.80	6.75
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castile, bars	lb.	.26	.35
Olive Castile, powder	lb.	.30	.35
Powdered White, Neutral	lb.	.19½	.21½
Olive Oil Foot, bars, 68-70%	lb.	.09	.09½
Green, U. S. P.	lb.	.08	.09½
Tallow Chips, 88%	lb.	.08¼	.08⅜
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.08	1.35
Car lots, in bulk	100 lb.	—	.90
Soda Caustic, cont., wks., solid	100 lb.	—	2.30
Flake	100 lb.	—	2.70
Liquid, tanks	100 lb.	—	1.95
Soda Sal., bbls.	100 lb.	$1.10	$1.30
Sodium Chloride (Salt)	ton	15.30	15.70
Sodium Fluoride, bbls.	lb.	.07¼	.08¾
Sodium Hydrosulphite, bbls.	lb.	.16	.17
Sodium Silicate, 40 deg., drum	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.40	1.80
Tar Acid Oils, 15-25%	gal.	.22½	.29½
Triethanolamine	lb.	.20	.22
Trisodium Phosphate, bags, bbls.	lb.	.02	.03
Zinc Oxide, lead free	lb.	.06¼	.07¾
Zinc Stearate, bbls.	lb.	.20	.22

Oils — Fats — Greases

Babassu, tanks, futures	lb.	.06⅝	—
Castor, No. 1, bbls.	lb.	.09¾	.10½
No. 3, bbls.	lb.	.09¼	.10
Coconut (without excise tax)			
Manila, tanks, N. Y.	lb.	.03⅝	—
Tanks, Pacific Coast, futures	lb.	.03⅜	.03½
Fatty Acids	lb.	.10	.10½
Copra. bulk, coast	lb.	.0205	Nom.
Corn, tanks, mills	lb.	.07⅝	.07¾
Fatty Acids	lb.	.06	.06½
Cottonseed, crude, tanks, mill	lb.	—	.06⅞
PSY, futures	lb.	.07½	.07¾
Fatty Acids	lb.	.0635	.0735
Soap stock 60-62%	lb.	.02⅞	.03⅛
Soap stock 65%	lb.	.03⅞	.04⅛
Foots (50% basis)	lb.	.01⅜	.01½
Greases, choice white bbls., f.o.b.			
Chicago	lb.	.05⅝	Nom.
Yellow	lb.	.04⅛	.04⅜
House	lb.	.04⅛	.04⅜
Lard Oil.			
Extra, bbls.	lb.	—	.10½
Extra, No. 1, bbls.	lb.	—	.09¼
No. 2, bbls.	lb.	—	.08½
Linseed, raw, bbls.	lb.	.1020	.1030
Tanks, raw	lb.	.0990	.1050
Boiled, 5 bbl. lots	lb.	.1070	.1090
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.09½
No. 2, bbls., N. Y.	lb.	—	.09
Olive, denatured, bbls., N. Y.	gal.	.03	.97
Foots, bbls., N. Y.	lb.	.08	.07¾
Palm, shipment	lb.	.03½	Nom.
Palm Kernel, shipment	lb.	.04	—
Red Oil, distilled, bbls.	lb.	.09⅝	.10⅝
Saponified, bbls.	lb.	.09⅝	.10⅝
Tanks	lb.	.08¾	.09¾
Sesame Oil, dms.	lb.	.10¼	.10½
Soya Bean, domestic tanks, crude	lb.	.0700	—
Stearic Acid,			
Double pressed	lb.	.11	.12
Triple pressed, bgs.	lb.	.13¾	.14¾
Stearine. oleo, bbls.	lb.	.07¼	.07½
Tallow, special, f.o.b. plant	lb.	.04⅞	.05
City, ex. loose, f.o.b. plant	lb.	.05⅜	—
Tallow oils, acidless, tanks, N. Y.	lb.	—	.08¾
Bbls., c/l N. Y.	lb.	—	.09¼
Teaseed Oil, crude	lb.	.08¼	.08½
Whale, refined	lb.	.0940	.0960

CRESYLIC ACID

AROMATICS

PHENYL ETHYL ALCOHOL	BENZYL ACETATE
GERANIOL	BENZYL ALCOHOL
CITRONELLOL	BENZOPHENONE
ACETOPHENONE	AMYL CINNAMICALDEHYDE

For Soaps, Perfumes, Cosmetics, etc.

ASSOCIATED COMPANIES

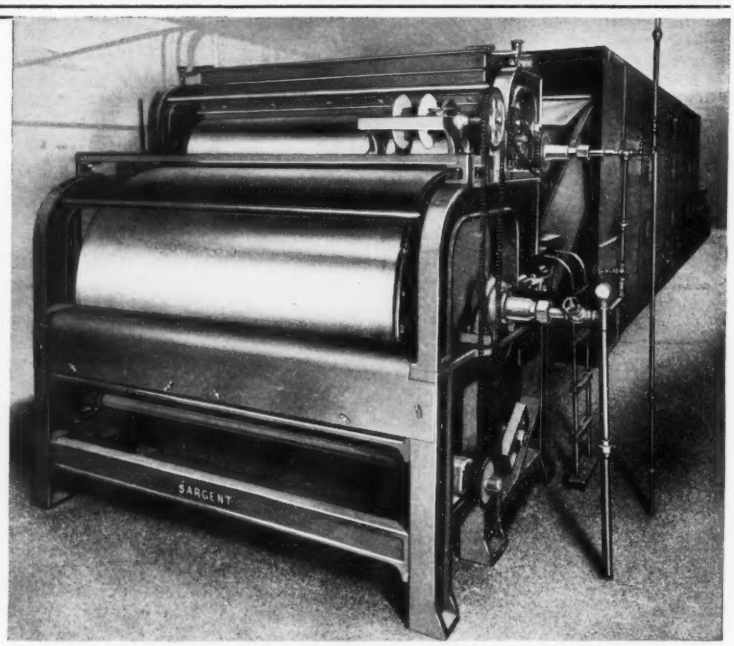
KAY-FRIES CHEMICALS, INC. NEW YORK, N. Y.

CHARLES TENNANT & CO. (CANADA) LTD. TORONTO, CANADA

AMERICAN-BRITISH
CHEMICAL SUPPLIES, Inc.
180 MADISON AVE., NEW YORK

New!..

a Soap Chilling Roll and Drying Machine



AS the title indicates, the Rolls are NEW and the entire machine is NEW, many valuable improvements having been perfected until this latest Sargent development is now one of the very finest Rolls obtainable.

To the soap manufacturer, the most important angle is to have a *thin, uniform chip* . . . readily accomplished by these new Rolls being expertly machined, ground and set. Finest grade of cast iron. Vari-speed controls on both Rolls insures easy adjustment . . . every part accessible. Drive improvements reduce the horsepower used. Changes made at a minute's notice. The Dryer is entirely re-designed. Its housing gives better insulation and cuts down steam consumption per hour. Other valuable changes have been made in the circulating and exhaust air systems . . . and all *fans* are *direct motor driven.*

C. G. SARGENT'S SONS CORP. GRANITEVILLE MASS., U. S. A.

(As of March 29, 1938)

Essential Oils

Almond, Bitter, U.S.P.	lb.	$2.25	$2.75
Bitter, F. F. P. A.	lb.	2.00	2.50
Sweet, cans	lb.	.68	.70
Anise, cans, U.S.P.	lb.	.90	1.05
Bay tins		1.35	1.50
Bergamot, coppers	lb.	4.00	4.10
Artificial	lb.	1.25	1.30
Birch Tar, rect. tins	lb.	.65	.70
Crude, tins	lb.	.14	.17
Bois de Rose, Brazilian	lb.	1.55	1.60
Cayenne	lb.	1.50	1.75
Cade, cans	lb.	.45	.50
Cajeput, native, tins	lb.	.66	.72
Calamus, tins	lb.	3.75	7.50
Camphor, Sassy, drums	lb.	.17	.18
White, drums	lb.	.17	.18
Cananga, native, tins	lb.	1.50	1.65
Rectified, tins	lb.	2.15	2.75
Caraway Seed	lb.	1.95	2.05
Cassia, Redistilled, U.S.P.	lb.	1.05	1.10
Cedar Leaf, tins	lb.	.75	.80
Cedar Wood, light, drums	lb.	.28	.30
Citronella, Java, drums	lb.	.40	.42
Citronella, Ceylon, drums	lb.	.36	.38
Clove, U.S.P., tins	lb.	.97	1.02
Eucalyptus, Austl., U.S.P., cans	lb.	.42	.43
Fennel, U. S. P., tins	lb.	1.20	1.30
Geranium, African, cans	lb.	3.50	4.50
Bourbon, tins	lb.	3.20	3.80
Turkish	lb.	2.05	2.75
Hemlock, tins	lb.	1.05	1.10
Lavender, U.S.P., tins	lb.	4.75	4.90
Spike, Spanish, cans	lb.	1.05	1.10
Lemon, Ital., U.S.P.	lb.	3.25	3.90
Cal.	lb.	2.50	—
Lemongrass, native, cans	lb.	.38	.40
Linaloe, Mex., cases	lb.	1.30	1.40
Nutmeg, U. S. P., tins	lb.	1.25	1.30
Orange, Sweet, W. Ind., tins	lb.	1.95	2.00
Italian cop	lb.	2.25	3.00
Distilled	lb.	—	.90
Cal.	lb.	1.50	1.75
Origanum, cans, tech	lb.	.90	1.60
Palmarosa	lb.	2.05	2.75
Patchouli	lb.	4.50	8.00
Pennyroyal, dom.	lb.	1.40	1.45
Imported	lb.	1.40	1.50
Peppermint, nat., cans	lb.	2.10	2.35
Redis., U.S.P., cans	lb.	2.30	2.55
Petitgrain, S. A., tins	lb.	1.05	1.10
Pine Needle, Siberian	lb.	1.02	1.05
Rose, Natural	oz.	5.25	22.50
Artificial	oz.	2.00	3.00
Rosemary, Spanish, tins	lb.	.56	.75
drums	lb.	.51	.70
Sandalwood, E. Ind., U.S.P.	lb.	5.25	5.50
Sassafras, U.S.P.	lb.	.90	1.05
Artificial, drums	lb.	.35	.36
Spearmint, U.S.P.	lb.	1.60	1.70
Thyme, red, U.S.P.	lb.	.69	1.50
White, U.S.P.	lb.	.78	1.70
Vetivert, Bourbon	lb.	4.35	16.50
Ylang Ylang, Bourbon	lb.	3.50	6.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.05	$1.45
Amyl Cinnamic Aldehyde	lb.	2.00	2.25
Anethol	lb.	1.30	1.35
Benzaldehyde, tech.	lb.	.60	.70
U. S. P.	lb.	.85	.95
Benzyl, Acetate	lb.	.44	.49
Alcohol	lb.	.63	.68
Citral	lb.	1.60	3.95
Citronellal	lb.	.75	.80
Citronellol	lb.	1.75	1.80
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.00	4.65
Cymene, drums	gal.	.90	1.25
Diphenyl oxide	lb.	.50	.55
Eucalyptol, U. S. P.	lb.	.58	.60
Eugenol, U.S.P.	lb.	2.10	2.55
Geraniol, Domestic	lb.	.67	3.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	1.20	2.50
Heliotropin	lb.	1.80	2.20
Hydroxycitronellal	lb.	2.00	2.50
Indol, C. P.	oz.	2.00	2.13
Ionone	lb.	1.30	4.05
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	2.10	6.30
Linalyl Acetate	lb.	1.70	6.30
Menthol	lb.	3.10	3.20
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.10	2.30
Paracresol	lb.	4.50	6.00
Salicylate, U.S.P.	lb.	.40	.45
Musk Ambrette	lb.	3.90	4.35
Ketone	lb.	4.05	4.50
Xylene	lb.	1.15	1.40
Phenylactaldehyde	lb.	2.25	3.50
Phenylacetic Acid, 1 lb. bot.	lb.	1.85	3.25
Phenylethyl Alcohol, 1 lb. bot.	lb.	2.70	4.25
Rhodinol	lb.	5.75	15.00
Safrol	lb.	.50	.54
Terpineol, C. P., 1,000 lb. drs.	lb.	.23	.25
Cans	lb.	.25	.27
Terpinyl Acetate, 25 lb. cans	lb.	.77	1.00
Thymol, U.S.P.	lb.	1.50	1.55
Vanillin, U.S.P.	lb.	3.10	3.20
Yara Yara	lb.	1.25	1.50

Insecticide Materials

Insect Powder, bbls.	lb.	.23¾	.25¼
Concentrated Extract			
5 to 1	gal.	1.70	1.80
20 to 1	gal.	6.40	6.75
30 to 1	gal.	9.60	9.95
Derris, powder—4%	lb.	.33	.37
Derris, powder—5%	lb.	.39	.43
Cube, powder—4%	lb.	.23½	.28½
Cube, powder—5%	lb.	.28	.33

Gums

Arabic, Amb. Sts.	lb.	.10½	.11
White, powdered	lb.	.13½	.14
Karaya, powdered No. 1	lb.	.14½	.28
Tragacanth, Aleppo, No. 1	lb.	2.75	3.00
Flake	lb.	.50	1.00

Waxes

Bees, white	lb.	.35	.39
African, bgs.	lb.	.24	.25½
Refined, yel.	lb.	.32	.35
Candelilla, bgs.	lb.	.14½	.15
Carnauba, No. 1	lb.	.38	.38½
No. 2 N. C.	lb.	.35½	.36
No. 3, chalky	lb.	.32½	.33
Ceresin, yellow	lb.	.08½	.11½
Paraffin ref. 125-130	lb.	.0445	.05

STARRING!

A NEW SOURCE OF SUPPLY FOR
FATTY ACIDS • ABIETIC ACID • PITCH

The Paper Industry is fast becoming an important source of raw materials for users of Fatty Acids, Abietic Acid and Pitch. Industrial Chemical Sales is a pioneer refiner of these products and from its plants at Covington, Va., and Charleston, S. C., can offer large quantities of the following:

INDUSOIL

Excellent as a blend with red oil for textile soaps and can be used with red oil for most other applications required of red oil, including cutting oils, drawing compounds, soluble oils, pine scrubs, etc.

A blend of refined fatty acids, with the following specifications:

AVERAGE QUALITY OF INDUSOIL

Specific Gravity 60°/60°F.	0.96-0.98
Pour Point	47° F.-52° F.
Viscosity (Saybolt)	
@ 100° F.	700-900 Sec.
@ 210° F.	70-80 Sec.
Flash Point	350-380° F.
Fire Point	410-430° F.
Sediment	None
Moisture	Practically None
Ash	Practically None
Completely Soluble in Petroleum Ether	
Acid No.	150-170
Saponification Value	150-170
Color (Rosin Scale)	G-I
Fatty Acid	43-47%
Rosin Acids	38-42%
Sterols	13-17%

ABIETIC ACID

A distilled product, excellent in color and meeting the following requirements:

Acid No.	176-185
Saponification No.	176-185
Iodine No.	150 to 170
Color (Rosin Scale)	N (Opaque)
Melting Point	230° F. to 250° F.

LIQRO

A blend of crude pine fatty acids, with the following specifications:

Acid No.	150 to 160	Fatty Acids	35 to 45%
Rosin Acids	40 to 50%	Sterols	15 to 20%

This material is available in large quantities both from our Covington, Va., mill and our new mill at Charleston, S. C.

Indicated uses are for asphalt emulsions, cutting oils, low priced soaps, and many other applications where a low price fat is a requirement.

Present prices on contract F.O.B. Charleston, S. C.

Tank Cars—$35.00 per ton Carloads in drums—$45.00 per ton

Large samples and specific data available on request.

PITCH

A new type pine fatty acid pitch, available from the distillation of Liqro, resulting in a pitch of excellent color and with a melting point of 85° to 95° F.

Samples, Specific Data, and Additional Information can be secured by writing

INDUSTRIAL CHEMICAL SALES

DIVISION WEST VIRGINIA PULP AND PAPER COMPANY

230 Park Ave., New York, N. Y.
1002 Lincoln Ave., Tyrone, Pa.
417 Schofield Bldg., Cleveland, Ohio
205 W. Wacker Drive, Chicago, Ill.

Production Section

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries.*

FLAKE SOAPS

SOAP flakes have been used in increasing amounts during recent years. Their ready solubility and convenience in handling give them obvious advantages over other soaps. The solubility depends on the choice of fats as well as on the size and thickness of the individual flakes. The thinner they are, the greater the relative surface area and the more rapid the solubility. The fat stock used is about the same as that for toilet soap. If it is desired to have the flakes readily soluble in cold water, the proportion of soft fats is increased. Flakes intended for use in warm water will have their transparency increased by the inclusion of a suitable amount of soft fats or oils such as peanut oil and lard. Suggested fat mixtures are as follows:

No. I

Per Cent	
50	tallow
10	palm oil
15	coconut oil
25	peanut oil

No. II

Per Cent	
25	tallow
20	hardened fat
15	palm oil
10	castor oil
30	seed oil

Other combinations of this sort may be used. Neutral fats may be replaced by distilled fatty acids which will give fine white flakes.

Some soap makers have used part potash lye for saponification in order to obtain a more plastic soap. On salting out, the potash soap is mostly converted to soda soap so that the use of mixed lye in this case is largely an illusion. Instead of this, it is better practice to make special soap from light-colored fatty acids by the semi-boiled process, using a mixture of potash and soda for saponification. This soap, because of absence of sodium chloride, is considerably more plastic than grained soap, and a certain proportion is added to the settled soap, usually 5-10 per cent. The addition can be made before drying, or the potash-soda soap can be dried and then mixed in with the flake soap. Potash soap has a greater hygroscopicity than soda soap so that it is advisable not to use more than 20 per cent of the former.

The boiled soap is prepared as usual from neutral fats, the glycerine being separated by the use of several changes. Too much salt is a disadvantage in any boiled soap and this is especially true with flake soap. A good soap to be made into flakes should have:

1. The highest possible fatty acid content.
2. A suitably adjusted alkalinity.
3. A salt content not exceeding 0.3 per cent.

Good settled soap should have a fatty acid content of 65-66 per cent, although the results of several analyses show that many soaps actually fall below this. A few analyses of soaps show the deviations which exist.

		Per Cent
1.	Fatty acids	62.20
	Water	28.
	Free caustic soda	0.27
	Sodium chloride	0.35
		Per Cent
2.	Fatty acids	61.23
	Water	30.
	Free caustic soda	0.32
	Sodium chloride	0.51
		Per Cent
3.	Fatty acid	65.
	Water	25.5
	Alkali	0.13
	Sodium chloride	0.21
		Per Cent
4.	Fatty acid	66.04
	Water	25.
	Alkali	0.13
	Sodium chloride	0.16

Many more analytical results could be given, but these are sufficient to show that soaps like numbers 1 and 2 should be avoided, while those like numbers 3 and 4 are to be desired. The method for attaining the desired result is by analytical control during manufacture. A long series of experiments has led to the conclusion that if during graining, the content of free alkali is 0.4-0.6 per cent, the settled soap will have an alkalinity of 0.12-0.15 per cent. The content of sodium chloride during graining is preferably about 0.9 per cent. If it amounts to 1.2 per cent, in the settled soap, the value will be about 0.3 per cent; if originally 0.9 per cent, the final value will be about 0.2-0.25 per cent. The water content is not so important at that stage. One might observe that fine large bubbles can be formed with a spatula.

which are completely clear and which break up in the air. The fatty acid content will be in the neighborhood of 56 per cent.

Soap flakes are frequently mixed with fillers and builders and then cooled. Material which can be used include silicate, sugar, potash, potassium chloride solution, sodium metasilicate, sodium bicarbonate, etc., also a composition made with silicate, castor oil and sugar. After filling, the product is cooled and finally dried. The soap is processed further the same as toilet soap, being finally mixed with perfume and a superfatting agent, passed through rollers several times, and lastly through a cutting roller, from which it emerges in the form of rhombic or square thin platelets.

A soap which is to be readily soluble in cold water may well contain 40 per cent of coconut oil, the rest consisting of peanut oil, lard, etc. This soap is best prepared from fatty acids, where possible, as it will then be free from salt and brittleness. Manufacture of flake soap from fatty acids and caustic soda can be highly recommended. *Allgemeine Oel-und Fett-Ztg.* **34,** 552-4 (1937).

◆

Viscosity of Soap Solutions

The viscosities of 0.05, 0.1, 0.2 and 0.5 per cent solutions of sodium stearate, oleate, naphthenate, resinate and their mixtures were determined at 45° C. in an Ostwald viscometer. The determinations were made immediately and after 1.5 and 3 hours of standing. The viscosities of oleate, resinate and naphthenate soaps were nearly equal and but little higher than the viscosity of water, independent of the time and concentration. The viscosity of sodium stearate at 12° C. was considerably higher than at 45° and increased rapidly with the time and concentration. At the concentrations of 0.2 and 0.3 per cent, the solutions became gelated within 1.5 hours. No change in the viscosity of the 0.05 per cent solution took place after 24 hours. The viscosities of 0.1 and 0.2 per cent solutions of sodium stearate at 45° C. were equal at first and then gradually rose to different values. The viscosity of sodium stearate was depressed on the addition of sodium naphthenate and resinate (in some cases below the viscosities of the latter). The addition of these soaps prevented the gelation of sodium stearate. The solutions of sodium oleate and stearate showed thixotropy. V. N. Savvina. Vsesoyuz. Nauch.-Issledovated. Inst. Zhirov. Soap Mf. 82-90; through Chem. Abs.

◆

Unsaponifiable Matter

The determination of unsaponifiable matter and unsaponified matter in soaps was conducted by the A.O.C.S. method and that of the British Society of Public Analysts. The results by the two methods were comparable for toilet soap, potassium vegetable oil soap and paste soap. The unsaponifiable matter of coconut oil soap was lower by the A.O.C.S. method. In order to determine whether the difference in results could be traced to the difference in solvents, extraction with petroleum ether was followed by extraction with ethyl ether. The weight of unsaponifiable from a 50-gram sample was increased from 0.791 gram to 1.423 grams. The additional material extracted with the ethyl ether was made up of mono and diglycerides. E. Randa. *Oil and Soap* **15,** 6-8 (1938); through Chem. Abs.

◆

Phulwara Butter

Phulwara butter is the solid fat present in the seeds of a shrub growing in northern India, where the fat is used for edible purposes and in soap. The chief components of phulwara butter are about 62 per cent of oleodipalmitins, about 23 per cent of palmitodioleins, 8 per cent of tripalmitin, and probably about 7 per cent of oleopalmitostearins. The seed fat known as shea butter contains about 45 per cent of stearodioleins, 35 of oleodistearins, 10 of palmitodioleins, and probably about 5 per cent each of palmitostearins and trioleins. W. J. Bushnell, T. G. Green and T. P. Hilditch. *J. Soc. Chem. Ind.* **57,** 48-53 (1938).

New Synthetic Amine

Rohm & Haas Co., Philadelphia, have announced a new tertiary amine, under the name, "Hyamine A," which is substantially non-volatile, and since it is amphoteric, forms salts with acids and alkalies. It forms water-soluble salts with inorganic acids and oil-soluble salts with fatty acids, rosins, and naphthenic acids. The Hyamine soaps are stated to be useful in the preparation of emulsions, creams, pastes, and cosmetics, and the Hyamine fatty acid soaps are held unique in their oil solubility and in their ability to emulsify oil systems. Hyamine A is a solvent for a wide variety of compounds and it is recommended for neutralizing acid and preventing corrosion in oil systems. It is said to be effective as an ingredient in paint removers, to act as a stabilizing agent in petroleum oils. As a tertiary amine, it reacts with a wide variety of compounds and is of interest in the synthesis of new disinfectants and pharmaceuticals, according to the manufacturer. Fatty acid salts of Hyamine A are available. This amine and its salts comprise a new member of the series of organic amines and quarternary ammonium compounds which Rohm & Haas are producing.

◆

Dry Saponification

A stable powdered or molded soap that does not effloresce and is free from alkali carbonate is prepared by intimately mixing a fatty acid at above its melting point with approximately twice the amount of calcined alkali carbonate theoretically necessary for complete saponification, and adding to the homogeneous mixture 2-50 per cent of water, calculated on the amount of fatty acid used. Salts that do not decompose alkali bicarbonate such as disodium phosphate, borax, and sodium perborate, may be added in the water. The reaction products may be mixed with liquid or solid soap, resin acids, sulfonated fats, paraffin, solvents, perfumes or other usual addition or filling agents. Adolf Welter. British Patent No. 473.220.

Glycerine Distillation

Glycerine was distilled in a vacuum steam-distillation unit, operating continuously, under typical manufacturing conditions. Three kinds of glycerine were used, soap lye crude, saponification crude and distilled glycerine. The heat of vaporization of the distilled glycerine was found to be 410 B.t.u. per pound at 77 mm. pressure. For the impure glycerine it seems necessary to use a range of 400-700 B.t.u. per pound of distilled glycerine at about 75-100 mm. M. Iwai and Seiichi Ueno. *J. Soc. Chem. Ind., Japan* **40,** suppl. binding 430-2; through Chem. Abs.

Ethanolamine Recovery

Ethanolamine used in refining oils and fats is recovered by heating the material rapidly to a distillation temperature above 150° C. and preferably above 200°. The ethanolamine soaps are decomposed immediately and amidization is avoided. N. V. de Bataafsche Petroleum Maatschappij. French Patent No. 816,289.

Improved Kreis Test

An improved Kreis test which will detect the oxidation of fats and oils at a very early stage is as follows: 3 cc. of melted fat or oil are weighed into a tube, 1 cc. of a 0.5 per cent weight volume solution of phloroglucinol in amyl acetate is added, and the mixture vigorously stirred or air bubbled through it for about a minute. Add 2 cc. of trichloroacetic acid solution made by dissolving x grams of the acid in $0.382x$ cc. of amyl acetate. The tube is immersed in a water bath at 45±0.1° C. for 15 minutes, with continuous stirring or with air still passing through. The tube is removed and the contents immediately diluted with 10 cc. or more of an ice-cold solution made by diluting 1 volume of the above trichloroacetic acid solution with 2 volumes of amyl acetate. The color is measured at once in a Lovibond tintometer or in a Zeiss photometer. A blank is run at the same time, using amyl acetate in place of the phloroglucinol solution. It is usually negligible except for highly colored oils.

The above procedure is for accurate investigation, but may be simplified for most practical work in which a rapid indication of the quality of an oil is all that is required. The bath temperature need not then be so rigidly controlled and the blank test can generally be omitted. W. P. Walters, M. M. Muers and E. B. Anderson. *J. Soc. Chem. Ind.* **57,** 53-6 (1938).

Alkali Refining of Fats

A fatty oil or fat is treated with a concentrated solution of alkali containing no more or only slightly more alkali than is theoretically necessary to neutralize the free fatty acids present. The soap produced is dried *in vacuo* during or after this treatment, and then separated from the oil or fat. The latter is then further refined by treatment with an alkali solution which is so dilute that saponification is practically avoided. An example is the treatment of corn oil first with caustic soda solution of 25° Be. and then with caustic solution of 3° Be. Metallges. A.-G. German Patent No. 652,351.

Javel Water

Javel water and Javel extract are prepared by causing a solution of soda ash to act on neutral or basic calcium hypochlorite, preferable on neutral. The product is stabilized by the action of excess soda ash on the free calcium oxide contained in industrial calcium hypochlorite, or by adding caustic soda. Compagnie de produits chimiques at electrometallurgiques Alais, Froges et Camargue. French Patent No. 815,430.

Coffee Fats for Soap

A factory has been established in Berlin to produce soap from coffee grounds. Hotels restaurants and similar establishments will be compelled to send their coffee grounds to the new factory, where the fatty acids present will be extracted. The fats obtained will be mainly used by the soap industry. *Perfumery & Essential Oil Record* **29,** 67 (1938).

Sampling Palm Oil

The sampling tube is satisfactory for drums of palm oil, but with large tanks an instrument known as a stealer jar is used. This consists of a cylindrical iron pot weighted at the bottom with sheet lead. Through a hole in the bottom a narrow iron pipe is fixed, extending to within 1 inch of the top of the pot. A cover, fastened by means of a clip on either side of the pot, is provided. A narrow bent pipe is fixed in the cover and also a hook for raising or lowering the pot. As it is lowered into a tank of oil, the latter is forced into the pot from the bottom, the displaced air escaping through the bent pipe in the cover. C. D. V. Georgi. *Malayan Agr. J.* **25,** 457-68; through Chem. Abs.

Silicates to Prevent Corrosion

The addition of sodium silicates to waters for the prevention of corrosion has been practiced in a small way for many years. It serves as a protective agent against the corrosion of a number of metals by many types of water. Although the use of sodium silicates will not always be the most economical method of preventing corrosion, it should be compared with other methods when dealing with corrosion problems. For waters of very low hardness, silicate is probably the cheapest and best agent for the purpose. Freedom from analytical control of feed offsets a somewhat higher chemical cost for most small waterworks. William Stericker. *Ind. Eng. Chem.* **30,** 348-51 (1938).

Structure of Soap

A number of commercial sodium soaps all displayed a crystalline structure, depending on the degree of milling. The grain and cold-process soaps showed an irregular microcrystalline distribution, and milled soaps a partial crystalline orientation. The dispersion was within the limits of from 10^{-4} to 10^{-5} mm. B. N. Tyutyunnikov and N. Kas'yanova. Vsesoyuz. Nauch.-Issledovatel. Inst. Zhirov, Soap Manuf. **1937,** 1-16; through Chem. Abs.

Products and Processes

Porous Washing Powder

A powdered washing composition easily distributable, consists of a polyglycerol or polyglycol ether admixtured with a calcined salt obtained by heating an alkali salt of a mineral acid, allowing the escape of a gaseous component such as water or carbon dioxide. The compounds are obtained by treating higher alcohols, fatty acids, fats, waxes, resins, phenols, naphthols, amines, or ethanolamides with ethylene, propylene or butylene oxides. Suitable calcined salts are anhydrous sodium carbonate, potassium carbonate, sodium pyrophosphate, sodium sulfate or sodium borate. The heat treatment results in the formation of hollow pores in the salts, which thereby have higher absorbing properties similar to kieselguhr. I. G. Farbenindustrie A.-G. British Patent No. 469,334.

Cleansing Agents

Sheets suitable for washing the face and hands are composed of a mixture of sulfonates of fatty alcohols and colloidal derivatives of cellulose soluble in water, particularly alkyl ethers of cellulose. A mixture containing 25 per cent of Colloresin FS and 75 per cent of Texapone may be used. Johann Linhart. French Patent No. 816,438.

Deodorized Naphthenic Soaps

The best refining results were obtained by distillation of naphthenic acids with superheated steam at atmospheric and reduced pressure, which yielded 80 per cent of pale acid and 8 per cent of light brown acid. The pale acid gave a nearly colorless soap of a faint odor. No improvements were shown by steam distillation of naphthenic acid free from the unsaponifiable substances and by additional reworking of the partially decolorized acid with superheated and saturated steam. Supplementary catalytic treatment of the distilled acid with an air current at 90-95° and 115° C. for 6-12 hours produced some further but incomplete deodorization. S. Z. Engel. Vsesoyuz. Nauch.-Issledovatel Inst. Zhirov., Soap Mf. 134-46; through Chem. Abs.

Sulfonated Detergent

Lime-resisting washing agents are prepared by sulfonating the oxidation products of high-molecular weight aliphatic or cycloaliphatic hydrocarbons which permit complete oxidation. The oxidation is carried out by an oxidizing gas at high temperatures and in the presence of a small amount of organic or inorganic acid. Sulfonated alcohols or olefins may be added to the products. E.g., white paraffin is oxidized by treatment with air at 160° C., in the presence of acetic acid vapor. The product is sulfonated by the use of oleum until soluble in water. It is then washed with sodium sulfate solution and neutralized with sodium hydroxide solution. I. G. Farbenind. A.-G. German Patent No. 652,541.

Alkalis in Pre-laundering

In examining special agents for softening water and for the preliminary soaking of soiled garments, mixtures of anhydrous sodium carbonate and sodium silicate proved to be the best water-softening agents. Nearly as good results were obtained with trisodium phosphate and mixtures of phosphate with sodium carbonate and sodium silicate. Caustic soda gave good results with waters of temporary but not with calcium sulfate hardness. The addition of sodium chloride to sodium carbonate reduced the softening power of the latter. Sodium silicate inhibits the yellow discoloration of washed clothes and the precipitation of iron compounds. Anhydrous sodium carbonate is a most economical and a sufficiently effective agent for the preliminary soaking of variously soiled garments. —reducing the consumption of soap by 15 per cent in washing. A mixture of sodium carbonate and sodium silicate is also a good wetting agent. A. M. Vasil'ev. Vsesoyuz. Nauch.-Issledovatel. Inst. Zhirov, Soap Manuf. **1937,** 65-81; through Chem. Abs.

Hexalin Soap

Curd soap mixed with 10 per cent of hexalin at 70° C. displayed excellent detergent power with an economy of 15-20 per cent in fatty acids. S. A. Deryban and A. M. Yasnyi. *Masloboino Zhirovoe Delo* **13,** No. 5. 24; through Chem. Abs.

Continuous Soap Manufacture

In the continuous manufacture of soap, a stream of saponified material is released into a chamber in which a partial vacuum is maintained. Glycerine is continuously removed from the chamber as vapor, and molten or plastic soap is continuously withdrawn; or the vacuum is maintained by the continuous removal of glycerine vapor while the soap is maintained in the molten or plastic condition until its removal. Soap from cottonseed oil must be kept above 455° F. and soap from palm oil or tallow above 518° F. until removed from the chamber. Refining, Inc. British Patent No. 471,172.

Soap from Wool Grease

Soap is obtained by saponifying wool grease by heating it with stirring, with anhydrous caustic alkali, e.g., to about 550° F. with caustic soda, or 450° F. with caustic potash, until frothing has subsided, the temperature being raised gradually. The soap may be freed from unsaponifiable matter by extraction with cold or warm solvents such as benzine, carbon tetrachloride and acetone. The extraction is aided by addition to the soap before cooling of such salts as sodium nitrite, ammonium sulfate or sodium chlorate. Polymerized cholesterol and other alcohols are recovered from the extract. The soaps may be split to form the fatty acids, which are separated

by distillation into fractions of high and low molecular weight, the former being used in lubricating grease or in wax compositions and the latter being converted into soap. Howard W. Smith and Sydney G. Campbell. British Patent No. 470,715.

Preservatives in Oils

Rancidity in oils produced by bacterial action may be inhibited by the addition of the following; Normal chloro derivatives of sulfonamides, such as Chloramine T and Aktivin S; *ortho*-phenol sulfonic acid from the direct sulfonation of phenol, such as Aseptol; sodium benzoate, formaldehyde, cresylic acid, phenol, and nitrobenzene or oil of myrbane. Kenneth L. Dorman. *Am. Dyestuff Reporter* **27,** 89-92 (1938).

Industrial Washing Agents

Solid stable compounds for the ready production of liquid washing agents for industrial uses consist of the products obtained by treating polyglycols or polyglycerols with calcined salts. E.g., a washing powder is obtained by treating isooctylphenol with acetaldehyde and then treating the product with potassium carbonate, obtained by calcining potassium bicarbonate. The potassium carbonate may be replaced by calcined sodium borate, sulfate or pyrophosphate. I. G. Farbenind. A.-G. French Patent No. 815,126.

Acid Refining of Oils

In processes wherein fatty oils or fats are refined by treatment in the liquid or dissolved state with an acid or a reagent which yields an acid, improved results are obtained by the addition of salts capable of maintaining the pH value of the aqueous phase between 1 and 7. The buffer salts may be added during or after the treatment with acid, provided that they are added before the slimy and albuminous impurities are separated from the fat. Disodium phosphate is a suitable salt. A solid adsorbent may also be present. Corrosion of the apparatus by the acid may be reduced by adding a small proportion of a salt of tin such as stannous chloride, or of an organic base such as quinoline. I. G. Farbenind. A.-G. German Patent No. 653,302.

Lignin Sulfate in Soaps

For the detection of lignin sulfonic acid from sulfite waste liquor, in soap, the fatty acids are separated in the usual way by acidifying a suitable sample solution with hydrochloric acid. As reagent put 3 cc. of a 0.25 per cent solution of Trypaflavin (3,6 - dimethyl - 10 - methylacridinium chloride) or of purified Thioflavin T (*p*-aminophenyltoluthiazol-trimethyl), in a test tube. Neutralize the acidified soap sample with caustic soda solution, partially evaporate and filter. If lignin sulfonic acid is present, a few drops of the soap extract in the filtrate will give a precipitate with the reagent. August Noll. *Seifensieder-Ztg.* **65,** 37 (1938).

Metal Cleaning

Materials are cleaned in the presence of a water emulsion of a soap or soap-like compound by treatment with a water-insoluble volatile organic solvent in the presence of an addition agent having an appreciable vapor pressure at the boiling point of the solvent and soluble therein, but having at most only a slight solubility in water. This agent facilitates the dispersion of the water emulsion in the solvent. The process is applicable to the cleaning of machined metal parts that have been lubricated with aqueous emulsions. Chlorinated aliphatic hydrocarbons such as trichloroethylene and perchloroethylene may be used as solvents and such compounds as cyclohexanol, methylcyclohexanol and tetrahydronapthalene, as addition agents. Imperial Chemical Industries, Ltd. British Patent No. 472,342.

Chromium Shaving Cream

A shaving composition contains chromic oxide, a chromate, dichromate or perchromate, or a mixture of these. Ralph H. Fash. German Patent No. 652,972.

Salt-water Soap

Soaps which lather well in salt water may be made from the following: 25 parts of coconut oil or its fatty acids, 3 parts of castor-oil fatty acids, 15 parts of 38° Be. caustic soda solution, 10 parts of water, 25 parts of 36° Be. sodium silicate, and 8 parts of 30° Be. potash solution. This is made by the semi-boiled process. If a soft soap is desired the fats are saponified with an equivalent amount of caustic potash. *Seifensieder-Ztg.* **65,** 62 (1938).

Oil Free of Bacteria

Tests of 278 specimens of cottonseed oil in all stages of processing, including fresh and stored refined oil, showed that the oil is almost completely sterile. The survival of inoculated *Penicillium* spores in the oil showed that the oil is sterile because it is an unfavorable medium for the existence and propagation of vegetative microörganisms and not because of its fungicidal properties. M. I. Arkhangel'skii and A. F. Samoilov. *Masloboino Zhirovoe Delo* **13,** No. 5, 10; through Chem. Abs.

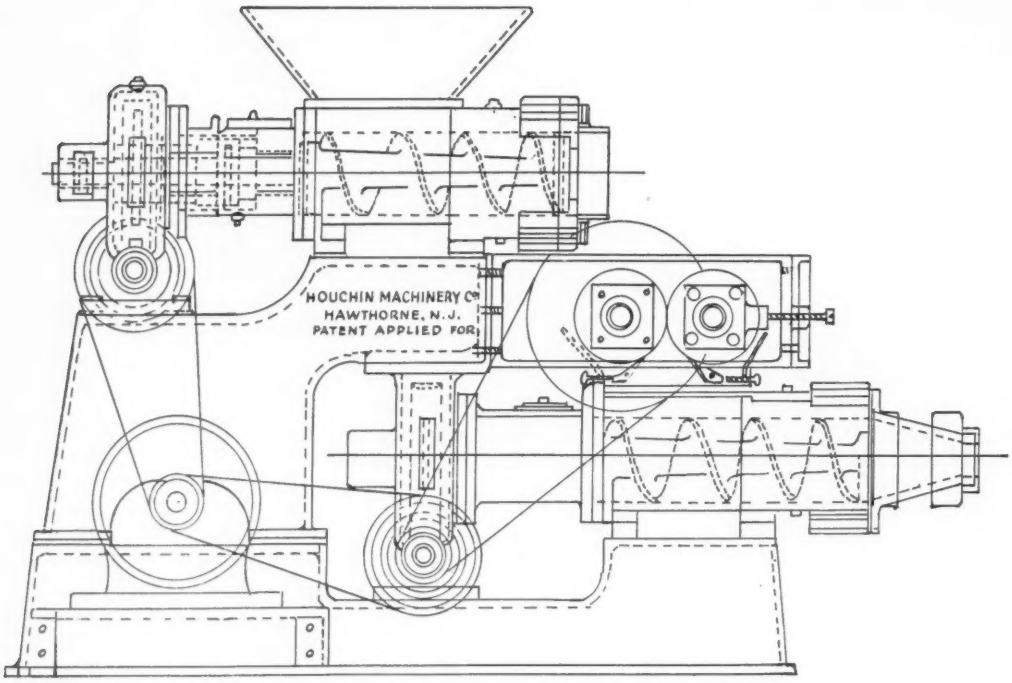
Silica Gel Suspensions

A silica gel suspension is made by adding a weak solution of sodium silicate to a sulfonated oil and then adding a neutralized protein and an oil, paraffin wax, etc. Bleaching solutions are made by the addition of hydrogen peroxide to this, or by treatment of the solution with ozone or oxygen. Detergents are made by admixture with soaps or soap solutions, —and insecticides by admixture with pyrethrum. Eugene V. Hayes-Gratze. British Patent No. 470,699.

Ketones for Superfatting

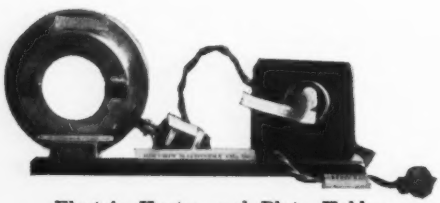
As superfatting agents in the manufacture of soaps, shaving creams, polishes, etc., use is made of Ketones of the type RCOR′, where R is an aliphatic radical of at least 6 carbon atoms and R′ is an aromatic radical containing a hydroxy group. Henkel & Cie. G.m.b.H. German Patent No. 653,217.

HOUCHIN MACHINERY CO., INC. HAWTHORNE, N. J.

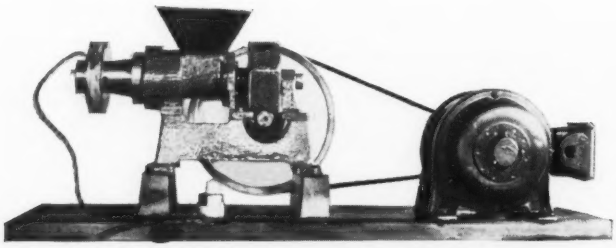


COMBINATION PLODDERS
With Double Head and Milling Attachment With Motor

Soap passing through the first time produces ribbons of soap. Second passing produces a fine finished, well compressed bar of Soap. For the second passing, remove Short Head on Second Plodder, bring Long Finishing Head in place. This Head is fitted with our Electric Heater and Plate Holder. A small stream of water passing through Plodder Cylinders and Rolls of Mill keeps the Soap cool, preventing the Soap from blistering. There is no dropping of Soap. The machine is very easily cleaned. It is excellent for short runs of Soap and saves Horse-Power.



Electric Heater and Plate Holder
By using this unit instead of steam, gas or lamp a uniform heat can be maintained. No more blistered soap. Made to fit all Plodders.



Laboratory Plodder, complete with Motor, Electric Heater, and Plate Holder.

Soaps for Hospitals

For general toilet use, especially with warm water, soaps are most satisfactory containing 70-80 per cent of tallow and 20-30 per cent of coconut oil, no more than 0.05 per cent of free alkali, 15 per cent moisture when milled, 35 per cent when unmilled. Vegetable oil soaps such as corn, cottonseed or olive, are preferable for cold water. Hard-water soaps are usually a straight coconut oil product, working only fairly well.

For surgical soap, a clear, odorless amber jelly made from potash, refined corn oil, and a small quantity of best quality coconut oil, is recommended. The free alkali should not be over 0.5 per cent. Soaps for general laundering should be commercially neutral tallow soaps. They should have a titer of about 40.4° C. and a free alkali content of less than 0.5 per cent. They may also contain cottonseed or corn oil, but not coconut oil or rosin. Soaps for washing at low temperatures should be made from blended olive, cottonseed or corn oil, having a titer of about 20° C.

For washing dishes and glassware, trisodium phosphate is most economical. Scouring bars and powders should contain 88-94 per cent of ground feldspar, about 2 per cent soap, not over 1 per cent of alkaline salt, not over 0.1 of free alkali, and not over 4 of moisture. Walls, woodwork and painted floors can safely be treated with an entirely neutral soap made from high-grade corn oil and potash. Neal R. Johnson. *Hospitals* **12,** 105 (1938).

—— ♦ ——

Fuel Oil in Whale Oil

Whale oil sometimes becomes contaminated with fuel oil in the floating factories in which the former is produced. As little as 0.01 per cent of fuel oil seriously damages the color of whale oil. Practically all whale oil is hydrogenated before use, and many authorities hold that these traces of fuel oil seriously retard hydrogenation, increase its cost, and cause the hardened product to be of inferior color and value.

The method for determining hydrocarbons in the oil is a lengthy and delicate one. However, traces of fuel oil may be *detected* by the adsorption of certain bodies in a column of aluminum oxide. Fuel oils are characterized by the presence of 10 per cent or more of asphaltic or pitch-like bodies. When the oils are dissolved in petroleum ether and the solution passed through a column of activated aluminum oxide, all the asphalt is removed and remains at the top of the column, giving a characteristic, almost black layer, whose size and intensity form a very good guide to the proportion of fuel oil present. Uncontaminated whale oil often leaves an orange or light brown deposit but this is unlikely to be mistaken for that from fuel oil. Any doubt can be removed by extraction of the deposit with ether, in which the asphalts dissolve, followed by re-adsorption of the extract after removal of the ether and solution in petroleum ether. If the re-adsorption layer is now dissolved in ether, the extract from uncontaminated whale oil is pale yellow, while that from fuel oil is dark brown, if the fuel oil was present to the extent of more than 0.005 per cent. E. R. Bolton and K. A. Williams. *Analyst* **63,** 84-93 (1938).

—— ♦ ——

Liquid Soap from Fatty Acids

Liquid soaps made from fatty acids should not be exactly and carefully neutralized, but should contain from 0.05 to 0.1 excess of free alkali. Such a product will be more satisfactory and will not be harsh on the skin to any appreciable extent. The excess alkali tends to stabilize the soap and keep the solution clear, which may not be the case in an exactly neutralized product. *Seifensieder-Ztg.* **65,** 62 (1938).

—— ♦ ——

Shampoo Ingredient

A liquid wetting agent such as turkey-red oil or a similar sulfonated product, is mixed with a solid diluent such as sodium bicarbonate or borax, to form a solid composition for use as an ingredient in shampoo preparations. Paul Mayer. Austrian Patent No. 151,421.

Silicate Soaps

Soap containing 50 per cent of fatty acids and 9 per cent of silicate was obtained by stirring grain soap with 20 per cent of a 47 per cent solution of silicate at 80° C. The pressed bars displayed no deformation for internal and external separation of electrolytes during the test period of 3 months. The loss in weight by drying and the increase in hardness as compared with commercial curd soaps were normal. The use of the silicate soap in washing in hard water resulted in saving up to 20 per cent of fatty acids, which would be used up in softening the water and neutralizing the acid impurities in clothes. Vsesoyuz. Nauch.-Issledovatel. Inst. Zhirov, Soap Mfg. 91-101.

—— ♦ ——

Animal Soaps

Most disinfectant soaps lose their disinfectant properties on storage. For soaps such as an animal soap which will not only disinfect but which will kill vermin, sufficient excess of the disinfectant must be present so that its dilution with soap will not cause it to lose its effectiveness. Such a soap is made by mixing 1 part of liquid soap with 0.5-1 part of crude cresol or with 0.4-0.5 part of a 35-40 per cent solution of formaldehyde. *Seifensieder-Ztg.* **65,** 62 (1938).

—— ♦ ——

Extracting Fatty Oils

In extracting oil from cashew nut shells by subjecting them to heated cashew nut oil in a stationary tank, the nuts are fed to a confined space below the level of the oil, being retained within the space and conveyed slowly through the oil while being forcibly maintained submerged during their travel through the oil. Wm. Jefferies and Peirce, Leslie & Co., Ltd. British Patent No. 472,195. An apparatus for extracting oil from cashew nut shells in a tank is provided with a movable scraper gear that comes into contact with practically the whole area of the bottom of the tank and carries the deposited sediment to a discharge outlet. British Patent No. 472,196.

A GOLD MEDAL TO THE TRUTH IN S&S ADVERTISING

And we will be glad to have you ask us to prove that statement!

The 1938 Gold Award in the Annual Packaging Competition.

OVER a year ago this company published an advertisement in a number of trade papers in regard to the packages being produced on an S & S Tight-Wrapping Machine by P. Duff & Sons, Inc.

This advertisement pointed out the protective quality of the metal wrap, its resistance to moisture, light and temperature changes — the way it prevents sifting and insect infestation, how it brought a great advance in appearance over previous packages at the point of sale.

Now, in the 1938 Packaging Competition, this package has been given the first award in its group. We are proud, justly we think, that we have been able to produce such an outstanding package and at the same time keep our enthusiasm within bounds in promoting it to other prospective users.

It will be gratifying to us if you will ask us for a reprint of the original advertisement to which we refer. Any request for other details will, of course, be equally welcome.

THE S&S LINE OF PACKAGING MACHINERY INCLUDES—CARTON FILLING AND SEALING MACHINERY—FILLING MACHINERY—TIGHT-WRAPPING MACHINERY—TRANS-WRAP MACHINES — COMPLETE PACKAGING LINES.

STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

4915 SUMMERDALE AVE., PHILADELPHIA, U. S. A.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

402 Bowen Building, Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,107,062, Hydroxylated Fish Oil Fatty Acids, Patented February 1, 1938, by Anderson W. Ralston and Stewart T. Bauer, Chicago, Ill., assignors to Armour and Company, Chicago, Ill. The process which comprises partially hydrogenating a fish oil material having an iodine number of at least 100 and being chosen from the group consisting of fish oil and the unsaturated fatty acids thereof until the iodine number is not more than about 80, and then hydroxylating the partially hydrogenated fish oil material.

No. 2,107,298, Insecticide, Patented February 8, 1938 by Lowell B. Kilgore, Washington, D. C., assignor to Kilgore Development Corporation, East Falls Church, Va. An insecticide comprising in solution an organic compound the molecular structure of which has the following tautomeric grouping as an integral part thereof: $CO—CH_2—CO \rightleftarrows CO—CH=C(OH)—$.

No. 2,107,321, Organic Mercury Compounds, Patented February 8, 1938 by Carl N. Andersen, Watertown, Mass., assignor to Lever Brothers Company. An aromatic mercury substituted pyrazole in which the radical RHg— is linked to a substituted pyrazole, where R represents an aromatic structure to the carbon atom of which the mercury is directly attached and in which none of the carbon atoms has direct linkage with any element other than hydrogen, carbon and mercury, and where the substituted pyrazole has any hydrogen attached to nitrogen replaced by a monovalent hydrocarbon radical.

No. 2,107,505, Process of Treating Animal Fat, Patented February 8, 1938 by Lloyd H. Reyerson, St. Paul, Minn. A process of treating animal fat to make lard which consists in moving semi-fluid animal fat in a relatively thin and expanded sheet slowly between two electrodes for a relatively long period of time and over a considerable extent of the electrodes, passing electric current independently to different sections of one of the electrodes, and progressively increasing their extent and area to cause electric current from the several sources to pass therefrom through the sheet of animal fat as the same is being moved to the other electrode.

No. 2,107,636, Cleanser Device, Patented February 8, 1938 by Russell B. Kingman, Orange, N. J., assignor to Metal Textile Corporation, West Orange, N. J. A cleaner device comprising a resiliently compressible hollow body adapted to enclose expressible saponaceous material, portions of the body wall being made of sponge rubber through which saponaceous material may be expressed, and a metallic mesh secured to the body in externally overlying relation to the sponge rubber wall portions thereof.

No. 2,107,905, Chlorinated Aralkyl Ketones, Patented February 8, 1938 by Anderson W. Ralston and Carl W. Christensen, Chicago, Ill., assignors to Armour and Company, Chicago. Chlorinated ketones of the general structure R-CO-R′ wherein R is an aryl radical chosen from the group consisting of phenyl, tolyl and xylyl, and R′ a heptadecyl radical containing a chlorine substituent.

No. 2,108,092, Bar Soap Dispenser, Patented February 15, 1938 by John E. Wheatley, Norwood, Ohio. In a soap dispenser the combination of a mounting frame, an inner frame thereon, a soap bar adapter slidable in the inner frame, a feed plunger assembly insertable in the adapter and removably connected with the inner frame, a cutter slide having an aperture therein mounted for reciprocation across the open end of the adapter, and a shaving blade secured to the cutter slide and extending across the aperture therein, the blade having a straight edge and clearance faces extending uniformly from opposite sides of the straight edge and forming between them an included angle which is bisected by a perpendicular from the plane of the cutter slide through the apex of the angle.

No. 2,108,214, Polishing Composition, Patented February 15, 1938 by Leroy W. Shuger, Baltimore, Md., assignor to Baltimore Paint and Color Works, Inc., Baltimore, Md. An emulsion polishing composition highly resistant to weather ravages comprising as a luster restorer, an odorless, stearine-free fish oil, as a lubricator and cleanser, mineral oil, and water, and in which the water is the continuous phase.

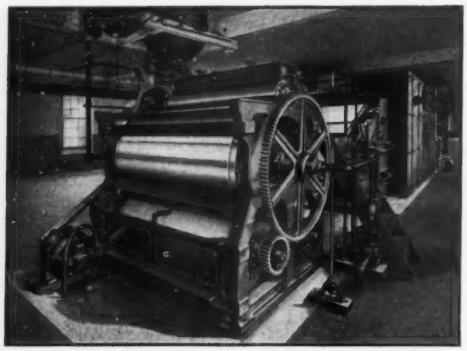
No. 2,108,405, Cleaning and Polishing Block, Patented February 15, 1938 by John J. Kennedy, Los Angeles, Calif., assignor to Chamberlain Co., Inc., Los Angeles, Calif. A block of the character described, the block containing coarse aggregate pumice, fine natural pumice, magnesite, and one of a group comprising oxy-chloride cement and oxy-phosphate cement.

No. 2,108,755, Purification of Sulfonation Productions, Patented February 15, 1938 by Walter H. McAllister, Wyoming, Ohio, assignor, by direct and mesne assignments, of one-half to Procter & Gamble Company, Cincinnati, Ohio, and of one-half to I. G. Farbenindustrie Aktiengesellschaft, Frankfort-on-the-Main, Germany. The process for the purification of products reacted with sulphonating agents which comprises mixing with water a sulfonated product of the group consisting of a neutralized reaction product of a sulfonating agent on a primary aliphatic alcohol, having ten to twenty-two carbon atoms per molecule, a neutralized reaction product of a sulfonating agent on a secondary alphatic alcohol having ten to twenty-five carbon atoms per molecule, and a neutralized reaction product of a sulfonating agent on a product consisting predominantly of olefins having ten to twenty-five carbon atoms per molecule, incorporating the aqueous mixture thus formed and containing a salt of the sulfonated compound in solution with sufficient water-soluble monohydric aliphatic alcohol containing one to three carbon atoms to avoid the formation of troublesome emulsions in subsequent treatment, and subjecting the resulting mixture to extraction with liquid hydrocarbons having a boiling point below 200°C., thereby freeing the water-soluble salt from matter not reacted with and not capable of reacting with the sulphonating agents, and obtaining a laundering agent.

No. 2,108,756, Detergents for Laundering, Patented February 15, 1938 by Walter H. McAllister, Wyoming, Ohio, assignor to Procter & Gamble Company, Cincinnati, Ohio. A process of preparing a detergent

(*Turn to Page* 73)

PRODUCING THE PERFECT CHIP FOR ALL SOAP MAKING NEEDS



● New Type Proctor Chip Soap System producing extremely thin chips of textile soap in new plant of Original Bradford Soap Co., River Point, R. I.

● The New Proctor Chip Soap System produces the thinnest of chips . . . chips perfectly formed in long ribbons, evenly thin from edge to edge, uniformly dried free from hard overdried particles or underdried spots. These chips make cleaner, whiter, quicker-dissolving laundry flakes. They make smooth-surfaced, clear-colored toilet cakes. They give quicker, better milling and plodding. They give quicker, easier grinding into powdered soaps . . . with less loss in dust. New high speed chilling roll . . . spray-cooled, pump-drained, precision-ground, smooth-surfaced. New drying machine . . . with revolutionary improvements in principal details of design . . . more efficient, more economical, cleaner in operation. Write for your copy of our new descriptive Bulletin No. 72.

PROCTOR & SCHWARTZ, INC.

• SEVENTH ST. & TABOR ROAD PHILADELPHIA •

LATE ?

Does your "routed" copy of SOAP reach your desk a week or more late? A personal subscription will eliminate this annoyance. You will get your copy *promptly*. It will be *yours*. Start this month.

Annual subscription:
$3.00 *Domestic*
$4.00 *Foreign*

MacNair-Dorland Co.
254 W. 31st St. New York, N. Y.

New Equipment

IF YOU want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., write to the MacNair-Dorland Co., Inc., 254 West 31st St., New York, mentioning the number of the item.

465—New Electric Sprayer

Lowell Manufacturing Co., Chicago, is introducing a new electric sprayer for insecticides. The motor

is of sturdy make of the roto pressure type and is said to develop the optimum pressure for the break up of insecticides. It is equipped with an adjustable nozzle and the container is of chromium plated copper. Glass containers can be furnished when desired. Another feature of the sprayer is that it is so designed that it remains still when in operation. Further details regarding the product may be obtained by writing the company or the publishers of SOAP.

466—Hand Labeling Device

Slick-Shine Co., Newark, N. J., manufacturer of polishes, insect sprays and sweeping compounds, has introduced a small hand labeling device for bottles designed especially for the small manufacturer, or the large manufacturer of special items. It consists of a wetting pad for moistening the face of the bottle, a sticking stand equipped with adjustable guides for receiving any size bottle and applying any size label, and an absorption pad for drying the bottle. The operation is in three motions. It is claimed that the device will label 30 flat-faced or slightly curved units per minute with any shaped gummed label.

Publications

467—Insecticide Mixer

Sprout, Waldron & Co., Muncy, Pa., have prepared a mailing circular and catalog page describing their combination sifter and mixer for powdered insecticides. Suggestons and precautions in the preparation and mixing of powdered insecticides are given to enable the user to get the best results. Copies available on request.

468—Safety Catalog

Willson Products, Inc., Reading, Pa., have just issued a new catalog of industrial safety devices covering the company's complete line of eye, nose, throat and lung protectors. Included are over 50 styles of goggles, a dozen kinds of welding handshields and helmets, a number of approved types of dust respirators, air line respirators, abrasive helmets, etc. Copies available on request.

469—Polaks Price List

Polaks Frutal Works, Inc., Long Island City, N. Y., have just issued a new catalog and a complete new price list for their line of essential oils and aromatic chemicals.

470—Patterson Mixer Folder

Patterson Foundry and Machine Co., East Liverpool, O., has just issued a booklet describing its mixers for liquids of both high and low viscosity. Copies available.

471—Materials Handling Booklet

Mullins Mfg. Corp., Warren, O., has just issued a new catalog describing new products and developments in the field of material handling equipment. A new type steel skid loading platform is illustrated together with a new type of box truck designed for use with the fork lift power truck. Combination wood and steel pallets are also illustrated. This type of unit is claimed to be advantageous over skid platforms since much more air space in the storing of materials is provided. The pallets have also been designed for handling by overhead crane operation. Copies available on request.

472—Solvay Sales Booklet

Solvay Sales Corp., New York, has just issued a 46-page booklet describing its line of products, including soda ash and calcium chloride, bottle washing alkalies, para-dichlorobenzene, etc. Copies available on request.

Variables in Dry Cleaning

The soil-removing efficiency of the dry-cleaning process in 27 commercial dry-cleaning plants was determined by using standard soiled fabrics. This is correlated with particular cleaning methods. Factors found to cause variations in cleansing efficiency were: The use of a break, the amount of cleaning aid used, length of the soap run, size of load, solvent level in the washer, type of rinse, and the condition of the solvent. Charles A. Gault. *Natl. Cleaner Dyer* **28,** No. 11, 46, 65-6 (1937).

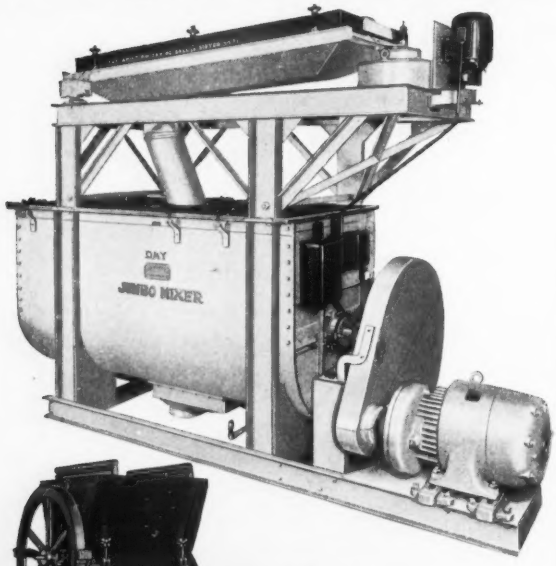
Lime Saponification

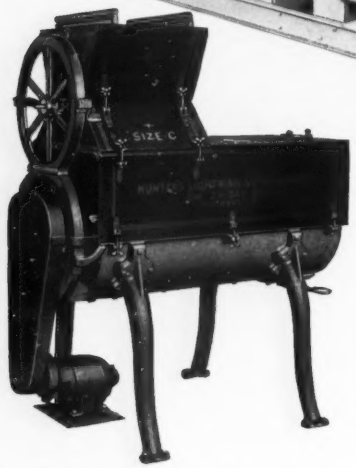
Good results were obtained in the manufacture of toilet soap by saponifying the fats with lime-water by the Krebitz method. F. S. Kasatkin. *Masloboino Zhirovoe Delo* **13,** No. 5, 20-1; through Chem. Abs.

Associated Laboratories Move

Associated Laboratories, Inc., formerly at 27 W. 20th St., New York, has moved to 51-12 21st St., Long Island City, N. Y.

DAY SIFTING and MIXING EQUIPMENT





Above:

Day Ro-Ball Gyrating Sifter mounted on a Day Jumbo Mixer.

Left:

Day "C" Hunter Sifter & Mixer approximate capacity 400 to 600 pounds.

The Ro-Ball—Jumbo unit is compact in design, sturdy in construction, free from vibration and uses a minimum of power. It provides a continuous sifting and mixing operation, producing approximately 1500 pounds of dry material, every 8 minutes.

The Hunter Sifter & Mixer is ideal for dry powders, mixing of cup greases, oils, cements, coatings, and various other materials requiring a thorough as well as a quick mix.

The J. H. Day Company has been manufacturing sifting and mixing equipment of all types for over a half century. No matter what your sifting or mixing problem may be, whether the incorporation and blending of dry powders, light pastes, or heavy plastics, there is a Day machine for your purpose.

Write for full information on these units

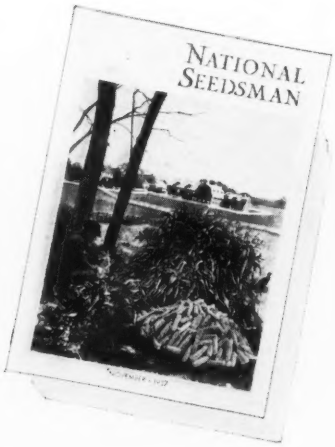
The J. H. DAY Company

Factories and Principal Offices

CINCINNATI **OHIO**

Do You Know

that the Seed Store is an important outlet for all agricultural and many household insecticides?



NATIONAL SEEDSMAN reaches 5000 retail seed stores, catalog seedsmen and leading wholesalers. It is the merchandising paper of the seed industry. Your advertising message in this publication takes the shortest route to the people who **resell** your merchandise. Write for sample copy and rates.

•

National Seedsman Publications

155 N. Clark St. **Room 805** **Chicago, Ill.**

New York Soap Market

(*From Page* 35)

miscellaneous brands average shows the widest margin, being 100 per cent less than the "medium" average and 245 per cent less than the "high." Also, a comparison shows that the average sales of the 7 brands of toilet soap are 10 per cent higher than the miscellaneous brands in the "high" areas, 135 per cent higher than the miscellaneous brands in the "medium" areas and 155 per cent higher than the miscellaneous brands in the "low" areas.

Consumption Of Soap Powders In High, Medium And Low Income Neighborhoods In New York

Compiled From Survey By New York Times, August, 1937

BRAND	HIGH Total No. Stores, 78				MEDIUM Total No. Stores, 151				LOW Total No. Stores, 268			
	% Stores Stocking Each Brand		Average Sale Per Store Carrying		% Stores Stocking Each Brand		Average Sale Per Store Carrying		% Stores Stocking Each Brand		Average Sale Per Store Carrying	
	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small
Gold Dust ..	98.7	52.6	21	10	98.68	68.21	9	7	83.9	64.6	5	5
Silver Dust ...	93.6	12.8	18	10	93.38	8.61	10	12	76.5	23.9	7	4
Rinso	100.0	92.3	55	23	100.0	100.0	30	21	91.8	93.3	21	17
Kirkman Gran.* ...	80.8	..	10	..	70.86	..	5	..	48.1	..	4	
Oxydol	97.4	64.1	15	5	96.03	78.81	17	11	77.6	63.4	10	7
Super Suds	80.8	79.5	15	32	78.15	95.36	11	15	71.6	88.1	7	10
Concen. Super Suds	73.1	30.8	9	2	82.12	7.95	8	9	66.8	19.8	5	1
Octagon Gran.* ...	15.4	..	11	..	8.61	..	6	..	7.1	..	3	..

* One Size Available Only.

Consumption Of Toilet Soaps In High, Medium And Low Income Neighborhoods In New York

Compiled from Survey By New York Times, September, 1937

BRAND	HIGH INCOME AREA				MEDIUM INCOME AREA				LOW INCOME AREA			
	GROCERY STORES Total No. Surveyed, 64		DRUG STORES Total No. Surveyed. 40		GROCERY STORES Total No. Surveyed, 117		DRUG STORES Total No. Surveyed, 76		GROCERY STORES Total No. Surveyed, 223		DRUG STORES Total No. Surveyed, 127	
	% Stores Stocking Each Brand	Aver. Sale Per Store Carrying	% Stores Stocking Each Brand	Aver. Sale Per Store Carrying	% Stores Stocking Each Brand	Aver. Sale Per Store Carrying	% Stores Stocking Each Brand	Aver. Sale Per Store Carrying	% Stores Stocking Each Brand	Aver. Sale Per Store Carrying	% Stores Stocking Each Brand	Aver. Sale Per Store Carrying
Camay	100	48	97.5	12	99.1	47	59.2	9	84.3	35	31.5	7
Cashmere Bouquet	12.5	14	100	25	7.7	9	100	30	2.2	5	95.3	14
Guest Ivory...	93.8	21	80	9	73.5	17	40.8	9	48.9	16	33.1	6
Lifebuoy	100	46	87.5	21	99.1	49	93.4	32	97.7	45	81.1	25
Lux Toilet Soap	100	53	87.5	26	100	54	92.1	31	97.7	40	71.6	23
Palmolive	100	51	87.5	23	99.1	64	88.1	35	96.9	40	74.8	24
Woodbury	92.2	19	100	21	80.3	16	98.7	25	49.3	11	96.1	12
Misc. Other Brands	...	..	..	114	..	..	..	65	..	..	..	33
Combined Total		237		239		238		217		165		117

New Patents

(*From Page* 69)

suitable for laundering processes comprising extracting organic unsulfated material and other organic impurities from a product containing water-soluble salts of alkyl sulfuric acids obtained from secondary alcohols having ten to twenty-five carbon atoms in the molecule.

No. 2,109,095, Insecticidal Composition, Patented February 22, 1938 by William Hunter Volck, Watsonville, Calif., assignor to California Spray-Chemical Corporation, Berkeley, Calif. A phytonomic insecticidal oil composition consisting of a mineral oil in which is dissolved less than about 3% by weight, relative to the oil, of alkali salts of sulfonic acids from petroleum and an organic liquid of relatively low molecular weight which is both oil and water soluble to a high degree in an amount adequate to lower the interfacial tension between the composition and water to the point that emulsification may be effected without the aid of any additional emulsifying agent.

Synthetic Detergents

(*From Page* 33)

Theory for the soap maker. I. Davidsohn and A. Davidsohn. Mat. grasses 28, 10810-12, 10832-5 (1936).

The detergent action of soaps. I. Davidsohn and A. Davidsohn. Mat. grasses 28, 10913-5, 10937-8, 10965-6 (1936).

New sulfonated products for the textile industry. J. I. Davidsohn. Ole, Fette, Wachse 1936, No. 5, 1-8.

Esdogen B wetting agent. E. Degenkolbe. Melliand Textilber. 17, 250-1 (1936).

Auxiliary reagents in the textile industry. L. Diserens. Rev. gen. mat. color. 40, 89-99, 225-41, 265-84, 353-66, 401-5, 441-56 (1936); 41, 1-21, 89-110 (1937).

Some new applications of colloidal chemistry: Emulsifiers and wetting agents. R. Dubrisay. Chimie & industrie 35, 267-73 (1936). 15 me Congr. chim. ind. (Bruxelles, Sept., 1935) 1936, lii-lviii.

The uses of sperm oil. T. Egupov, A. Bag and S. Smirnov. Masloboino Zhirovoe Delo 12, 594-7 (1936).

Scientific thoughts about modern washing problems. A. Foulon. Deut. Wollen Gewerbe 6, 1567-8 (1936).

Sulfonated fatty alcohols and their uses (in shampoos and creams). R. M. Gattefosse. Chemist and Druggist 124, 310 (1936).

Some newer textile assistants. A. J.

Hall. Am. Dyestuff Reptr. 25, 561-565 (1936).

Textile detergents. M. J. Hausman. Soap 12, No. 5, 23-7, 61 (1936).

"Soaps" made without fat acids. H. J. Henk. Seifensieder-Ztg. 63, 1050-1 (1936).

Determining the efficacy of foaming, wetting, washing, cleaning, detergent and similar preparations. Determining wetting power. J. Hetzer. Fettchem. Umschau 43, 4-8 (1936).

The chemistry of wetting agents. J. Hetzer. Fettchem. Umschau 43, 38-42 (1936).

Products of the action of sulfuric acid on aliphatic, higher-molecular carboxylic acids and their glycerides. J. Hetzer. Seifensieder-Ztg. 63, 242-3 (1936).

Soaps (and soap substitutes) in the textile industry. J. Hetzer. Seifensieder-Ztg. 63, 415-7 (1936).

Solvent soaps for the household and the textile industry. J. Hetzer. Seifensieder-Ztg. 63, 495-6 (1936).

Electrical conductivities of aqueous solutions of sodium dodecyl sulfate and sodium hexadecyl sulfate at different temperatures. O. R. Howell and H. C. B. Robinson. Proc. Roy. Soc. (London) A155, 386-406 (1936).

"Lanette" waxes, (manufacture and uses). L. Ivanovszky. Ole, Fette, Wachse, Seife, Kosmetik 1936, No. 10, 10-11.

Material analysts and research chemists in the field of waxes. L. Ivanovszky. Farben-Chem. 7, 328-32 (1936).

Fluid waxes in cosmetics. H. Janistyn. Deut. Parfum.-Ztg. 22, 86-8 (1936).

The new cetyl alcohol cosmetics. S. P. Jannaway. Perfumery Essent. Oil Record 27, 154-6 (1936).

The significance of chemical research in the production of soaps and washing agents. H. P. Kaufmann. Fette u. Seifen 43, 178-83 (1936).

Sulfated fatty alcohols. (Summary.) A. F. Kertess. J. Soc. Dyers and Colourists 52, 42-45 (1936).

Investigation of the lime-soap dispersion capacity of textile detergents. H. Kuckertz. Angew. Chem. 49, 273-6 (1936).

Albatex PO. A. Landolt. Melliand Textilber. 17, 650-3 (1936).

Recent advances in the realm of soap-like substances. E. L. Lederer. Kolloid-Z. 75, 236-42 (1936).

Measuring the calcium soap dispersion capacity. E. L. Lederer. Ole, Fette, Wachse, Seife, Kosmetik 1936, No. 10, 1-3.

The colloidal chemical and technical washing properties of hydrated colloids. I. Washing action and hydrated colloids. K. Lindner. Fette u. Seifen 43, 214-8 (1936).

The colloidal chemical and technical washing properties of hydrated colloids. II. Emulsifying power of colloid solutions. K. Lindner. Fette u. Seifen 43, 253-6 (1936).

(The use of) albumin condensates in the vat dyeing of wool. W. Michel. Z. ges. Textil-Ind. 39, 220-1 (1936).

Technical utilization of wool fat. W. Obst. Allgem. Oel-u. Fett-Ztg. 33, 468-9 (1936).

Special equipment for catalytic hydrogenations at high pressures. L. Palfray. Bull. soc. chim. (5), 3, 508-11 (1936).

High pressure catalytic hydrogenations. Essential oils and esters. L. Palfray and S. Sabetay. Bull. soc. chim. (5), 3, 682-7 (1936).

Synthesis of monohydric unsaturated alcohols with systems of double linkings. P. Pel'kis. Mem. Inst. Chem. Ukrain Acad. Sci. 3, 45-58 (in German 59-60) 1936.

Oiling of wool. W. Pflumm. Spinner u. Weber 54, No. 34, 1-2 (1936).

Soap-like bases. (Sapamines.) E. W. Pierce. Mell. & Rayon Text. No. 17, 71, 74 (1936).

Modern cosmetic creams. H. S. Redgrove. Pharm. J. 137, 295-6 (1936).

Salts of higher alkyl sulfonic acids. R. M. Reed and H. V. Tartar. J. Am. Chem. Soc. 58, 322-32 (1936).

Modern washing methods. F. Rogowski. Naturwissenschaften 24, 266-9 (1936).

The wetting power of steam-distilled pine oils. E. V. Romaine and I. E. Knapp. Amer. Dyestuff Reptr. 25, 341-5 (1936).

New method for the production of cetyl esters from sperm oil. V. Rubenshtein, V. Kharitonova, E. Shevlyagina and E. Mikhailova. Masloboino Zhirovoe Delo 12, 254-5 (1936).

Wetting agents frothing in acid media. S. Sabetay. Bull. soc. chim. (5), 3, 1918-9 (1936).

Cetyl alcohol, (preparation and uses in salves and cosmetics). H. Schwarz. Seifensieder-Ztg. 63, 761-2 (1936).

Mesomorphous states in soaps and detergents. W. Seck. Angew. Chem. 49, 203-6 (1936).

Synthesis and properties of dyeing assistants. F. Seidel and O. Engelfried. Ber. 69, 2567-91 (1936).

New methods of washing wool and woolen and semi-woolen fabrics. A. M. Serebryakov, N. A. Tretyakova and F. I. Kogan. Sherstyanoe Delo No. 3, 22-8 (1936).

Industrial applications of the higher alkylsulfonates. L. Szego and G. D. Ponte. Atti V congr. nazl. chim. pura applicata, Rome 1935, Pt. II, 870-5 (1936).

Colloidal nature of soaps. A. Thiessen. Fette u. Seifen 43, 149-52 (1936).

The higher aliphatic alcohols and their industrial preparation. G. Tocco and E. D. Bartholmaeis. Atti V congr. nazl. chim. pura applicata, Rome 1935, Pt. II, 876-9 (1936).

Dry cleaning soaps. C. A. Tyler. Soap 12, No. 5, 31-3, 61 (1936).

Liquid shaving preparations. C. A. Tyler. Glass Packer 15, 46-8 (1936).

Unsaponifiable matters in sperm blubber oil. S. Ueno and R. Koyama. J. Chem. Soc. Japan 57, 1-9 (1936).

Occurrence of many new constituents in the unsaponifiable matter of sperm blubber oil. S. Ueno and R. Koyama. Bull. Chem. Soc. Japan 11, 394-403 (1936).

Old and new washing materials with particular reference to the new German fibers. O. Uhl. Kunststoffverarb. Folge B, 4, 7-15 (Sept.-Oct., 1936).

Oriented absorption and surface-active surfaces. Their role in the textile industry. J. Vallee. Bull. federation intern. assoc. chim. textile couleur 2, 5-24 (1936). Rev. gen. mat. color. 40, 313-22 (1936).

Oil-free and water-in-oil emulsions. H. Wagner. Allgem. Oel- u. Fett-Ztg. 33, 368-70 (1936).

Importance of enzymes as degreasing and detergent agents. B. Walthert. Blanchisserie 4, 628, 633 (1936).

Soaps and synthetic washing agents. Welwart. Seifen-Fachbl. 8, No. 2, 2-4 (1936).

The use of fatty alcohol sulfonates in hot baths. P. Wilhelm. Monatschr. Textil-Ind. 51, 134-5 (1936).

Decolorizing (cleansing) as a process opposed, yet similar, to dyeing. L. Zakarias (Zacharias). Tiba 14, 11-7, 87-9 (1936).

The displacement of fats and oils (by fatless detergents). L. Zakarias (Zacharias). Chimie & industrie 36, 1095-1100 (1936).

Abrasives in Cleaners

(*From Page* 23)

presence of a small number of diatoms.

Clays such as china clay which respond to neither of the above tests may be identified by fusion with potassium bisulfate in the manner previously described, solution of the melt in warm, dilute sulfuric acid, and the addition of a fragment of cesium chloride or sulfate to a drop of solution on a slide. Cesium alum which crystallizes in the well formed octahedra shown in Fig. 9 demonstrates the presence of a clay.

Apparatus required: Microscope—preferably a good chemical microscope. Micro-burner. Platinum wire. *Reagents*: Ammonium chloride, citric acid, disodium phosphate, conc. ammonia, potassium bisulfate, cesium sulfate, benzyl alcohol, benzyl benzoate, clove oil.

Sanitary Products SECTION

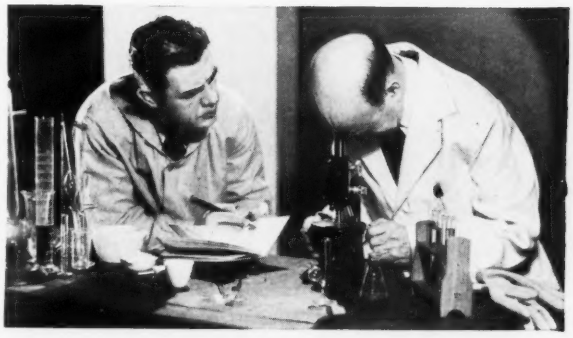
A Section of "SOAP" dealing with

Insecticides • Disinfectants • Moth Products
Floor Products • Polishes • Chemical Specialties

FIVE GALLON DRUM or CARLOAD

...Penick Promptly ships

PYREFUME SUPER 20 - SUPER 30



A large section of our new spacious Lyndhurst manufacturing division is devoted to the production of PYREFUME—*"the perfected pyrethrum concentrate"*. Addition of new, modern equipment has greatly increased capacity, thus permitting prompt shipments—no matter how large the order.

SCIENTIFIC CONTROL throughout manufacture; stringent assay of samples at various steps in production assure the same outstanding PYREFUME advantages every time:—Above-standard "knock down and kill" potency. Assay-guaranteed pyrethrins content • unique stability • clear blending • unusual non-staining • singular freedom from unpleasant odors • low cost.

Concentrate on PYREFUME
for a Quality Concentrate

S. B. PENICK & COMPANY 132 Nassau Street, New York—1228 W. Kinzie Street, Chicago

The World's Largest Botanical Drug House

PENICK ships PYREFUME
From a FIVE GALLON DRUM
to a CARLOAD

Killing Power — That's the Thing!

Dependable Pyrethrum and POWCO BRAND are consistently synonymous; both represent the quality demanded by the careful insecticide manufacturer.

The variables with which we work are not "worryables" to be passed along to you. POWCO BRAND Basic Pyrethrum Extracts are the result of careful standardization, planned to facilitate the production of top-flight insecticides.

Count on POWCO BRAND for positive killing power!

JOHN POWELL & CO., INC.

114 EAST 32nd STREET **NEW YORK**

Specialists in Pyrethrum & Rotenone

Specialists in . . .
INDUSTRIAL PERFUMING

We have developed many interesting odors for perfuming technical products such as:

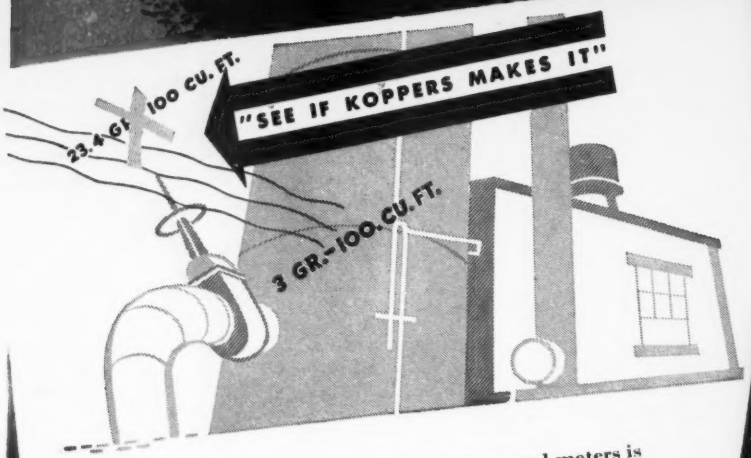
Shoe Dressings—Furniture and Metal Polishes—Sweeping Compounds — Glue — Inks — Embalming Fluids — Window Cleaners—Lacquers—Paints—And all other such products containing ammonia, acetone, formaldehyde, kerosene, wood alcohol and other solvents with an objectionable odor.

Our laboratory will be pleased to assist you on your particular perfume problem. Call on us!

P. R. DREYER INC.

12 East 12th St. New York, N. Y.

SEE IF KOPPERS MAKES IT



One of the sources of trouble in gas lines and meters is naphthalene in the gas. The Western Gas Division of Koppers Company developed a simple but efficient system of naphthalene removal. In one system handling 25,000,000 cubic feet of manufactured gas a day, this system reduced the naphthalene content from 23.4 grains per 100 cubic feet to less than 3 grains. The operating costs are very low—almost negligible.

Koppers may be able to solve some problem in your business.

KOPPERS PRODUCTS

CRESOL, U. S. P. . . . PHENOL . . . CRESYLIC ACID, 98% to 100%, Straw Color . . . TAR ACID OILS . . . NEUTRAL HYDROCARBON OIL . . . NAPHTHALENE . . . BENZOL, (all grades) . . . TOLUOL (Industrial and Nitration) . . . XYLOL (10° and Industrial) . . . SOLVENT NAPHTHA (including High Flash) . . . SHINGLE STAIN OIL . . . REFINED TARS . . . INDUSTRIAL COAL TAR PITCHES . . . FLOTATION OILS . . . CREOSOTE . . . TANKS AND TANK WORK . . . REMOVAL AND RECOVERY APPARATUS . . . COAL TAR ROOFING . . . WATERPROOFING AND DAMPPROOFING MATERIALS . . . TARMAC ROAD TAR . . . BITUMINOUS BASE PAINTS . . . COAL AND COKE . . . FAST'S SELF-ALIGNING COUPLINGS . . . AMERICAN HAMMERED PISTON RINGS . . . GAS, AIR AND WATER VALVES . . . PRESSURE-TREATED TIMBER PRODUCTS . . . BRONZE AND IRON CASTINGS

PRODUCTS OF THE WHITE TAR COMPANY OF NEW JERSEY, INC.

REFINED NAPHTHALENE
Crushed, Crystals, Powder, Lump, Chips, Flakes. For use in manufacture of deodorizing blocks, moth preventives and other insecticides.
Also Naphthalene in Balls, Blocks, Tablets.

COAL TAR DISINFECTANTS
Co-efficients 2 to 20 plus, F. D. A. Method
CRESOL AND CRESYLIC DISINFECTANTS

PINE OIL DISINFECTANTS
PINE OIL DEODORANTS
CRYSTAL AND BLOCK DEODORANTS
LIQUID INSECTICIDES
DEODORIZING BLOCKS
Pressed Naphthalene or Paradichlorobenzene. Various sizes and shapes. Perfumed and plain. Bulk industrial packages, retail packages.

KOPPERS COMPANY
PITTSBURGH

A 3-WAY REPACKAGE *Sales Pusher*

MOTH KILLER... INSECTICIDE... Powerful DEODORANT...

You check the grade ...we'll do the rest

***A** right size for your every repackaging requirement!*

As a repackaging product, Solvay Para-dichlorobenzene pushes sales because it meets the demands of the market . . . brings a good price because it suits the customer's requirements.

Solvay Para-dichlorobenzene has the advantage of being a three-way sales pusher . . . MOTH KILLER . . . INSECTICIDE . . . POWERFUL DEODORANT. It goes over in all three of these markets!

In transparent packaging, patent cans, and mixed with attractive colors, Solvay Para-dichlorobenzene satisfies all the repackaging demands for a constantly uniform quality product to sell under your own label.

These are actual size photographs of 10 grades of Solvay Para-dichlorobenzene. In the coupon, place a check in the box number of the grade size of which you would like to receive a sample and send it in today. Or, if you are uncertain of your requirements, our technical staff is ready to help you select the most efficient grades for block manufacture or for other particular purposes.

1	2	3	5	6	7	8	9	10	11

SOLVAY SALES CORPORATION
40 Rector Street New York, N. Y.

Gentlemen: Please send me a sample of Solvay Para-dichlorobenzene of the grade I have checked off above.

Name.....

Address.....

City.....*State*.....

Dept. AJ

IMPORTANT NEWS
for users of LETHANE

M M & R Laboratories Announce

DEODORANT L37 MM&R

A POSITIVE NEUTRALIZER OF LETHANE ODOR

IT NEUTRALIZES-but does not perfume. **Most important feature of this great aid to users of Lethane is its positive ability to absolutely neutralize the odor of Lethane in Fly Sprays. Next in importance is the fact that DEODORANT L37 M M & R imparts no perfume whatsoever. This is desirable because it enables you to market a pleasant, unperfumed Fly Spray or to add the customary odors identified with your products after the Lethane odor has been neutralized. Third important advantage of the use of DEODORANT L37 M M & R as a neutralizer is that it reduces the volume of perfume required to impart the necessary odor. This is apparent since the neutralizing function of DEODORANT L37 M M & R minimizes the requirements of the perfuming agent.**

Send the Coupon Below for a Free Testing Sample

For Perfuming Fly Sprays—

PERFUME OIL SWEETGRASS M M & R

THE ORIGINAL AND ONLY GENUINE SWEETGRASS

The amazing acceptance of PERFUME OIL SWEETGRASS M M & R is based on the outstanding merit of this odor for perfuming Fly Sprays. The success of PERFUME OIL SWEETGRASS M M & R has given rise to imitations. If you have not tested PERFUME OIL SWEETGRASS M M & R, send for a testing sample now and discover for yourself the extraordinary superiority of this highly specialized perfume oil.

For A Better Theatre Spray

S. T. AQUASOL ORIENTAL BOUQUET No. 225 M M & R

Here is an outstanding, truly delightful perfume for a non-alcoholic theatre spray. S. T. AQUASOL ORIENTAL BOUQUET No. 225 M M & R is miscible in water and will give you a theatre spray with genuine sales appeal. Sample available on request.

Magnus, Mabee & Reynard, Inc.
32 Cliff Street, New York City.

Gentlemen:
I'd like a testing sample of your—

- ☐ DEODORANT L37 M M & R
- ☐ PERFUME OIL SWEETGRASS M M & R
- ☐ S. T. AQUASOL ORIENTAL BOUQUET No. 225 M M & R

Name .....

Firm Name .....

Address .....

MAGNUS, MABEE & REYNARD, INC.

QUALITY ESSENTIAL OILS . BALSAMS . AROMATIC CHEMICALS, ETC...SINCE 1895

32 CLIFF STREET — **NEW YORK, N. Y.**

CHICAGO OFFICE: 444 West Grand Avenue
CANADIAN DISTRIBUTORS: Richardson Agencies, Ltd.,
454 King St. W., Toronto, Canada

☐ Put me on the mailing list for your bi-monthly Catalog.

PARADOW

(PURE PARADICHLORBENZENE)

OTHER DOW CHEMICALS

Coumarin — Methyl Salicylate — Methyl Anthranilate — Phenol — Dowicides (Disinfectants, Fungicides) — Caustic Soda — Carbon Tetrachloride — Ethylene Dichloride — Propylene Dichloride — Orthodichlorbenzene and over 300 others.

AND THERE'S A SIZE FOR EVERY NEED

PARADOW* has outstanding advantages for the user of paradichlorbenzene.

This Dow product meets the highest standards for deodorant and moth preventative products. It is pure—full strength—and dependable.

Furthermore, PARADOW is regularly made in six sizes, from fines to quarter-inch crystals, with special sizes available on order. Thus, whatever your requirements, there is a PARADOW size to meet them.

Convince yourself of its advantages. Write for samples and quotations on PARADOW today. There is no obligation.

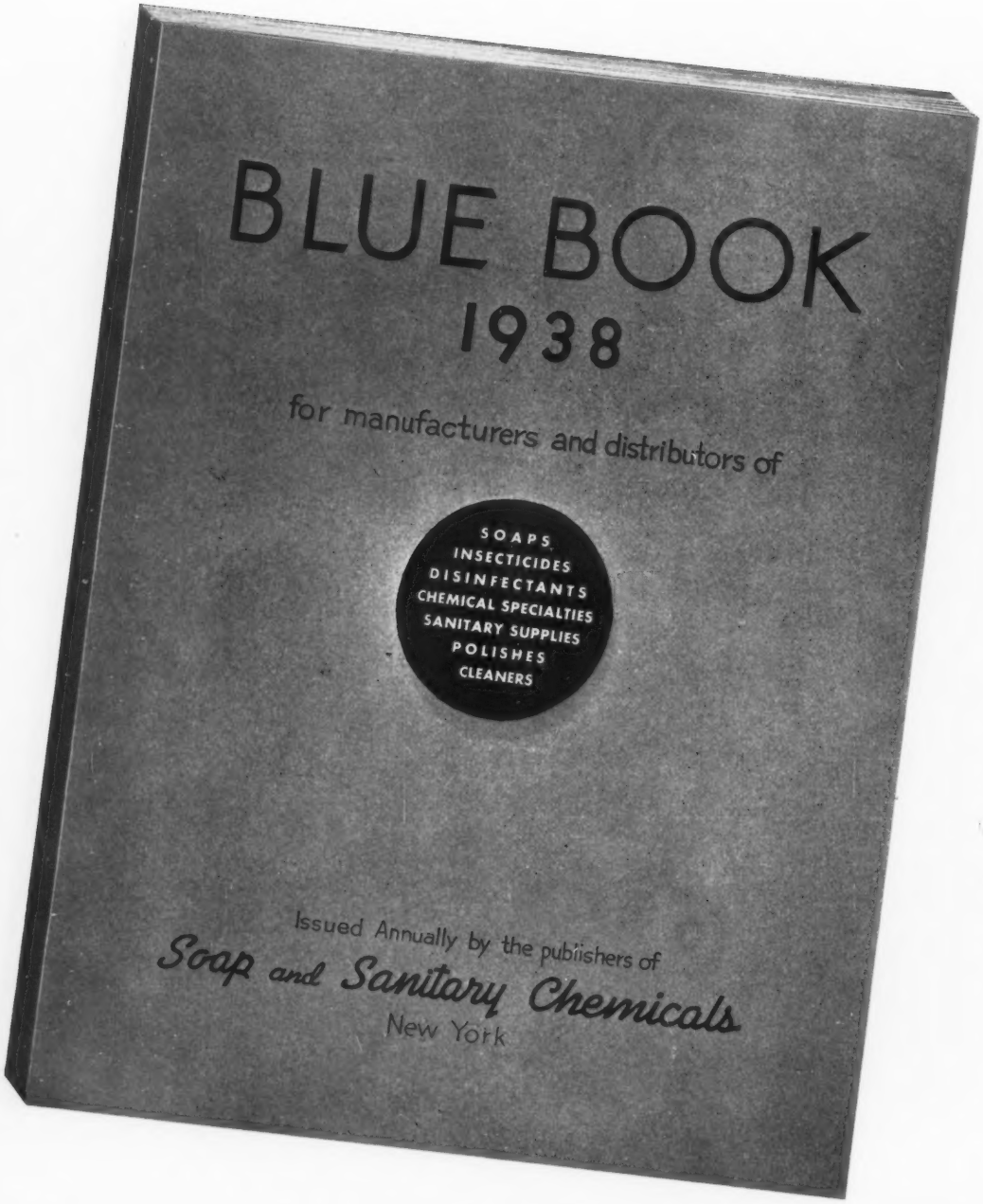
DOW

*Trade Mark Reg. U. S. Pat. Off.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

Branch Sales Offices: 30 Rockefeller Plaza, New York City—Second and Madison Streets, St. Louis—Field Building, Chicago

The New 1938 BLUE BOOK to SOAP Subscribers April 10th



will be mailed *free*

Contents

This section has again been materially expanded, reflecting subscribers' expressions of approval. Contents of the 1938 edition include: reference articles on the following subjects: Soap Dispensers —a complete review of all types of dispensers available for liquid and powdered toilet soap, detailing the good points and shortcomings of each; The Manufacture of Emulsion Floor Waxes; White Shoe Cleaners,—a review of the various types on the market with instructions for their preparation; Household Ammonia. — instructions on preparation, complete with dilution tables; Insecticide Perfuming,—comments on suitable and unsuitable odors for fly sprays; Peet-Grady Test,—first publication of the new revised method for insecticide testing; F. D. A. Disinfectant Testing Method; Specifications of the National Association of Insecticide and Disinfectant Manufacturers for insecticides and disinfectants; U. S. Specifications for soaps, polishes, waxes, cleansers, chemicals, etc.; Oil and Fat Tariff and Excise Rates; an index to SOAP for the years 1934, 1935, 1936 and 1937 (makes it easy to locate valuable technical information); Technical Charts and Tables; Directory of Association Officers.

Reference Section

The Buyer's Guide contains a list of everything readers of SOAP buy—raw materials of all kinds, machinery, packaging materials and bulk soaps, sanitary products and sanitary accessories—with a comprehensive list of leading suppliers of each item. This is distinctly not an ordinary buyer's guide, cluttered up with names of dealers, branch offices, etc., and with advertisers indiscriminately listed. We have strived in each case to list only first hands—actual primary sources of supply.

Buyer's Guide

FREE

The SOAP BLUE BOOK costs SOAP subscribers nothing. Free copies will be mailed April 10th to our entire list. A limited number of additional copies are available. If you want one your check for $3.00 (Foreign, $4.00) will cover a subscription to SOAP for one year and will insure your receiving a BLUE BOOK by return mail.

MAC NAIR-DORLAND CO., Inc.

254 West 31st St. New York

Dependable High Killing Power with

"PRENTISS"

PYRETHRUM EXTRACT

A PYRETHRUM concentrate of uncertain strength,—a finished insecticide that will not kill—*neither is a bargain at any price.* The only reason behind public purchase of insecticide is to kill insects. This seems fairly obvious, yet is apparently ignored by some manufacturers, as not all insecticides kill.

If your insecticide is made with

"PRENTISS" PYRETHRUM EXTRACT No. 20

you are definitely assured of receiving uniformly high toxicity, and therefore uniformly high killing power.

R. J. PRENTISS & CO., Inc.

100 Gold Street **New York City**

Plant and Warehouses: 259-261 *King St., Brooklyn, N. Y.*

We have purchased the Pyrethrum and Insecticide Division of the
SHERWOOD PETROLEUM CO., INC.
Including their Pyrethrum Extract Plant and Testing Laboratories.

Introducing—

PARATINTS · SERIES C

● Here is a new line of low-priced Givaudan Paratints for scenting and coloring in one operation paste blocks, moth balls or bath salts.

Paratints, Series "C", consists of 14 scents of excellent strength and lasting qualities. Each has been developed especially to off-set the odor of paradichlorobenzene and at the same time impart a pleasant fragrance and uniform, brilliant color. The colors are already added to the perfume oils for your convenience*.

Paratints, Series "C", offers a real opportunity for economy in scenting and coloring. Prices range from $1.60 to $2.85 per pound, depending on the quantity purchased.

The complete list of Series "C" Paratints is given below. Check over the types offered and write to us for samples of the ones you prefer.

Make your own tests and be convinced.

Lilac (Purple)	Orange Blossom (Orange)
Narcisse (Yellow)	Wisteria (Purple)
Lavender (Lavender)	New Mown Hay (Yellow)
Pine (Green)	Rose (Rose)
Sweet Pea (Green)	Carnation (Red)
Jasmin (Yellow)	Violet (Violet)
Oriental (Orange)	Gardenia (Tangerine)

*Paratints may also be obtained without color added.

GIVAUDAN DELAWANNA, INC.

N. Y. — 330 FIFTH AVENUE — NEW YORK, N. Y.

BRANCHES: Philadelphia — Cincinnati — Detroit — Dallas — Baltimore — Chicago — San Francisco — Seattle — Montreal — Havana

Announcing

PETROMA

. . . a new idea
in odor coverage
for

FLY SPRAYS

. . . for use with both Pyrethrum and Lethane sprays . . . one pound of PETROMA gives effective coverage in 100 gallons of insecticide . . . cut your perfuming cost to the bone . . . let PETROMA show what it can do in your product . . .

SEND FOR SAMPLE
AND MAKE YOUR TESTS NOW
FOR THE COMING SEASON

ODOCENE
THE REFRESHING SPRAY ODOR
SEND FOR SAMPLE

VITACENE
THE FLORAL SPRAY ODOR
SEND FOR SAMPLE

AROMATIC PRODUCTS, INC.

15 East 30th Street, New York City — Factory: Springdale, Conn.

ATLANTA 432 Marietta St., N.W.
PITTSBURGH 727 Grant Building
CHICAGO 205 West Wacker Drive
SAN FRANCISCO 503 Market Street
BOSTON 80 Boylston St.

Disinfectants Containing

YARMOR 302*

offer these advantages:

Penetrates

Powerful Penetration: Disinfectants containing the proper amount of Hercules Yarmor 302 Steam-distilled Pine Oil kill many disease-producing germs. These disinfectants possess powerful solvent and penetrating properties that also make them efficient cleaners.

High Germicidal Value

Increase Germicidal Value: Because of the higher percentage of active ingredients, disinfectants properly formulated with Hercules Yarmor 302 Steam-distilled Pine Oil have increased germicidal value.

Pleasant Fragrance

Pleasant to Use: Disinfectants compounded with Yarmor 302 leave a clean, fragrant, piney odor wherever applied.

Manufacturers of disinfectants should investigate the advantages to be obtained by the use of Yarmor 302.

Return the coupon for further information.

HERCULES NAVAL STORES

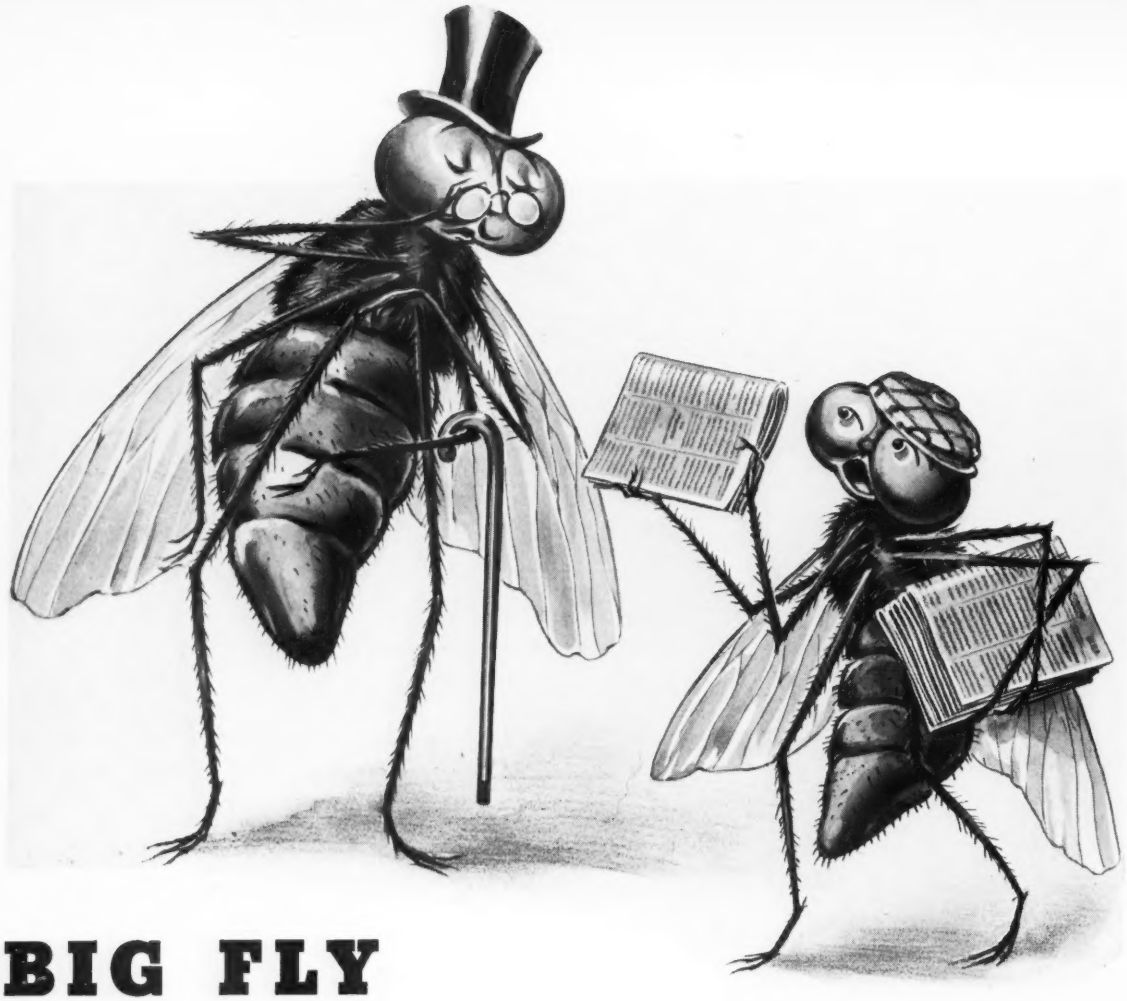
HERCULES POWDER COMPANY
Incorporated
961 Market Street, Wilmington, Delaware

HERCULES POWDER COMPANY
INCORPORATED
961 Market Street, Wilmington, Delaware
Please send information about the value of Yarmor 302 in disinfectants.

Name _____
Company _____
Street _____
City _____ State _____

*Reg. U. S. Pat. Off. by Hercules Powder Company

QO-69



BIG FLY

and . . . LITTLE FLY

● Better buy that paper, Mr. Big Fly, and read the obituaries. For an Atlantic Ultrasene-base insecticide has come to town.

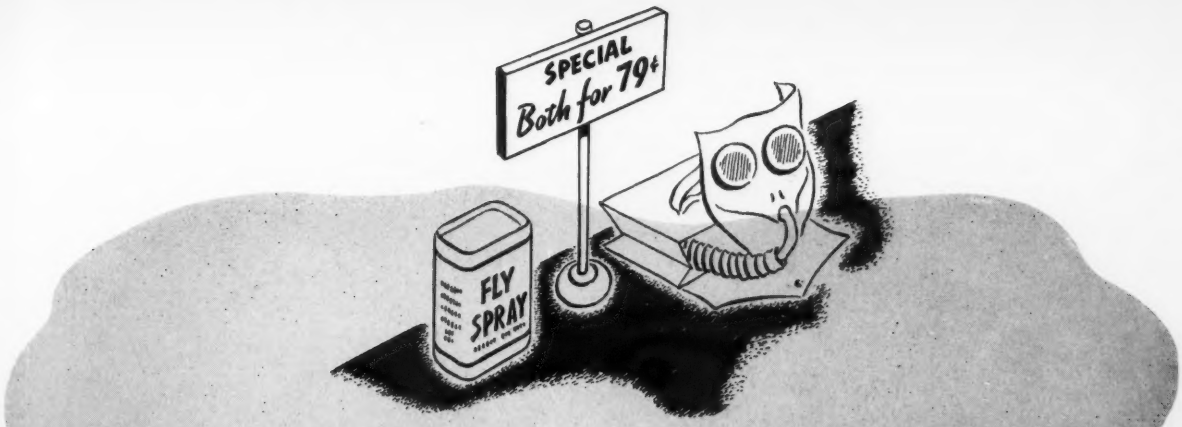
Atlantic Ultrasene has no superior as an insecticide base. It is refined solely for that use. Unlike a kerosene base, it leaves no unpleasant odor, no oily residue and it evaporates readily.

That's why restaurant, hotel, market proprietors are using Ultrasene-base insecticides. Naturally, alert insecticide manufacturers are choosing Ultrasene for their spray-base.

Get the facts about Atlantic Ultrasene. Our technical department will gladly help you with complete details and liberal samples. The Atlantic Refining Co., Specialty Sales Dept., 260 S. Broad St., Philadelphia.

ATLANTIC ULTRASENE

—A BETTER BASE FOR BETTER INSECTICIDES



GAS MASKS AND FLY SPRAY

If gas masks were merchandised with fly sprays and customers wore them in waging battle against insect pests, manufacturers would find one of their most important production and marketing problems eliminated. No longer would it be necessary to perfume fly sprays pleasantly. No longer would it be advantageous to impart clean, fresh outdoor odors that impress the buyer properly.

BUT gas masks and fly sprays do not go hand-in-hand!

For many years the Felton Chemical Company has been engaged in producing fly spray perfumes and neutralizers that actually *sell* merchandise through correct nose appeal. The entire KEREX line represents the most modern, most effective means of building lasting sales volume and consumer demand. Put it to work for you without delay!

THESE FELTON FLY SPRAY PERFUMES IMPROVE YOUR PRODUCT!

COST LESS THAN 2c TO PERFUME A GALLON OF SPRAY!

KEREX No. 11
a light floral type

KEREX L'ORIENT
a pleasant and popular fragrance

KEREX V. 450
a clean, "outdoor" scent

KEREX BOUQUET
a floral odor of proven merit

WRITE FOR SAMPLES NOW!

FELTON Quality

FELTON
CHEMICAL COMPANY, INC.
603 JOHNSON AVE., BROOKLYN, N. Y.

Manufacturers of AROMATIC CHEMICALS, NATURAL DERIVATIVES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Stocks in Principal Cities

Boston, Mass.	Philadelphia, Pa.	Sandusky, Ohio	Chicago, Ill.	St. Louis, Mo.	New Orleans, La.	Los Angeles, Calif.
80 Boylston St.	200 So. 12th St.	1408 W. Market St.	1200 N. Ashland Ave.	4910 W. Pine Blvd.	Balter Bldg.	4727 W. Washington Blvd.

Available from stock—

1938 OFFICIAL TEST INSECTICIDE

THE 1938 Official Test Insecticide specified for evaluating liquid household fly sprays by the Peet-Grady Method under the new official specification of the National Association of Insecticide & Disinfectant Manufacturers, is stocked for prompt shipment in single six-ounce bottles or in boxes of one dozen six-ounce bottles. The 1937 Official Control Insecticide is now obsolete and should not be used.

Send orders or requests for information direct to the Executive Office of the National Association of Insecticide & Disinfectant Manufacturers, 110 East 42nd St., New York. The official test insecticide may be purchased by all firms or laboratories whether members of this Association or not.

▼

National Association of

Insecticide & Disinfectant Manufacturers, Inc.

110 East 42nd Street — New York

OFFICERS

President — J. L. BRENN, Huntington Laboratories, Inc., Huntington, Ind.
First Vice-President — W. J. ZICK, Stanco, Inc., New York
Second Vice-President — WALLACE THOMAS, Gulf Refining Co., Pittsburgh
Treasurer — JOHN POWELL, John Powell & Co., New York
Secretary — JOHN H. WRIGHT

BOARD OF GOVERNORS

GORDON M. BAIRD, Baird & McGuire, Inc., Holbrook, Mass.
JOHN CURLETT, McCormick & Co., Baltimore
W. B. EDDY, Rochester Germicide Co., Rochester, N. Y.
N. J. GOTHARD, Sinclair Refining Co., E. Chicago, Ind.
H. W. HAMILTON, White Tar Co., Kearny, N. J.
H. A. NELSON, Chemical Supply Co., Cleveland
S. S. SELIG, The Selig Co., Atlanta
DR. E. G. THOMSSEN, J. R. Watkins Co., Winona, Minn.
CLARENCE WEIRICH, C. B. Dolge Co., Westport, Conn.
R. H. YOUNG, Davies-Young Soap Co., Dayton, O.

READY..
FOR THE GUN

Is your insecticide ready for the gun? We don't have to tell you spring is here. We don't have to tell you that spring starts the insecticide season.

But, before you get into the rush of production and distribution, we do want you to reconsider *odor*.

Household sprays can be covered perfectly and pleasantly. If you are not *completely* satisfied with the odor of your spray, send us a gallon of your unperfumed product and let us submit our suggestions.

VAN AMERINGEN · HAEBLER, INC.

315 FOURTH AVE., NEW YORK CITY

Baird's

YOU MAY TAKE US AT OUR WORD

PES-TOX
BUG-TOX
MOTH SPRAY
CATTLE SPRAY
PYRETHRUM
CONCENTRATE

BAIRD & McGUIRE, INC.
HOLBROOK, MASS.
79 WALL STREET, NEW YORK

Sanitary Products

A Section of SOAP
Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

NO definite decision in regard to the interpretation of the registration section of the Pennsylvania law covering household and agricultural insecticides, has come forth at this writing. The insecticide trade, or that part of it which sells its goods in Pennsylvania, is twiddling its thumbs awaiting the pleasure of the Attorney General.

Were we in the same position, we would not hesitate long in establishing some sort of a makeshift representative or importer or whatever you may call him within that state. We would certainly lose no time at this season in having some resident of Pennsylvania act the part of importer for us, whether in fact or fancy. Legal deliberations may be all very fine, but they are notoriously slow. Further delay may mean missing the 1938 market and a very considerable money loss to manufacturers who normally sell in that state.

OUT on the West Coast, a so-called authority recently stated that disinfectants when diluted in accordance with directions, do not have any true disinfecting value, — are merely deodorants. If he had stopped here, he would still be one-hundred per cent wrong, but his remarks would have been innocuous. However, he went on to say that actually to kill germs, disinfectants must be used straight without dilution. And herein lies the danger. The next step is for some jackass to use one of the coal-tars straight and then sue the manufacturer for damages. Surely, a jail term is too good for any "authority" who would broadcast a statement such as the above. He is a menace to the safety of the community.

BECAUSE of a generally mild winter throughout the United States this year, entomologists are telling us that a heavier infestation than usual of all kinds of insects may be expected this summer. This applies to household insects as well as to those which attack agricultural crops. Of curse, insecticide manufacturers translate this into terms of a larger demand for insecticides and are hopeful that this demand will materialize. Maybe this is the silver lining to the cloud of gloom which has enveloped many manufacturers of household insecticides during the past three months,—maybe 1938 volume will make up for the margin of profit which is said to be conspicuous by its absence or its extreme thinness.

HIGHLY polished waxed floors present an ideal opportunity for the "insurance racketeer," states a bulletin from a wax manufacturer. Bright polished floors invite unjust claims for damages through the time-tested racket of planned accidents. But this manufacturer has had his waxes tested to prove his non-slip claims in advance and in anticipation that users thereof may be subjected to fake damage suits. The idea of beating the racketeer by advance planning is a laudable one. But we wonder how well laboratory evidence of this nature would stand up in court. If one can of wax is not slippery, is it admissible evidence that another by inference is likewise non-slippery? Or will every can of every wax from now on be tested? And do not most users of wax in stores, buildings, hotels, etc. carry liability insurance against this very thing? We think it is a subject of more interest to the insurance companies than it is to the wax user.

...steamship market for SANITARY CHEMICALS

What the ocean liners use to clean, wash dishes, control insects, prevent disease,—and a discussion of their numerous sanitation problems

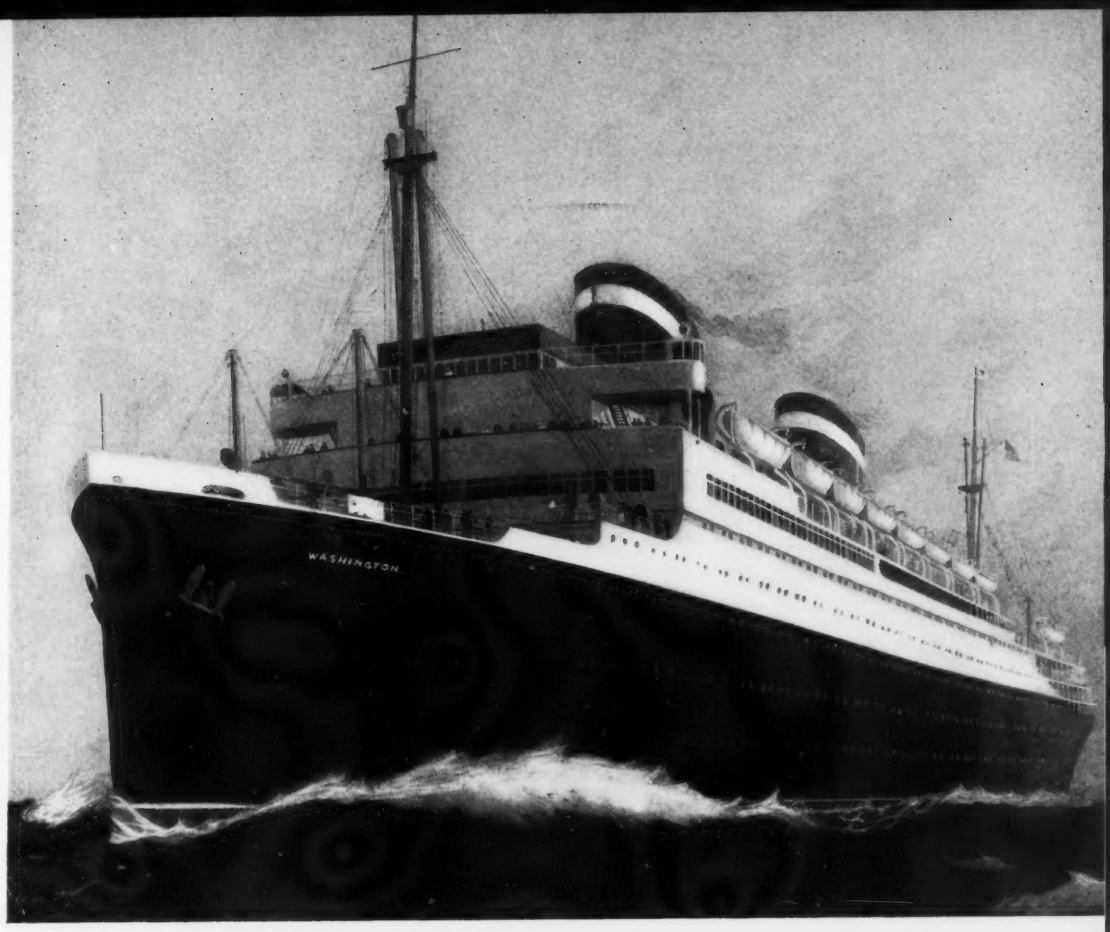
LAST year, between April and September, 350,000 American tourists traveled to Europe. Not the least of many inducements offered to help them forget the cares they left behind were the large ocean liners on which they traveled, luxuriously appointed, immaculately furnished, and offering the best in food and drink. This year the number of Americans going to Europe will be much smaller. There will be no coronation for one thing, war threatens for another, and there is the current "recession," for a third. Yet the steamship agencies are hopeful. They are encouraged by the growing popularity of South America as a mecca for tourists.

Altogether steamships touch ports in all parts of the world, some not so healthy and some not so clean. They carry passengers of every race and nationality, foodstuffs of all descriptions and rare and perishable cargoes. At each port old cargo is discharged and a new taken aboard. The possibilities of contamination, dirt, filth, insect infestation and disease are legion. The sanitation and cleanliness problems confronting steamships are more numerous and ubiquitous than were Job's boils.

Recently, to examine a few of the many phases of the cleanliness and sanitation problems on board ships, representatives of seven well-known steamship companies, operating a total of 140 passenger and freight ships were interviewed. What is used to clean the walls, decks and floors of your boats? What do you use for washing dishes, What about disinfectants and deodorants,—could you tell us something about their use? What is your biggest headache among the many problems involved in keeping a boat clean and free from insects and disease? With one exception, the seven companies were willing enough to discuss their sanitary problems. The one exception is a small company operating five passenger boats which touch mostly at American ports. The purchasing agent of that company felt it would be unfair to the suppliers of the products to discuss the soaps, cleansers, disinfectants, deodorants, etc. which his company used. It was argued that an open discussion might be of value to him, since it would acquaint the trade with his problems and might result in a better product, or one that was claimed to be better, being offered him. That, he explained, was precisely what he wished to avoid. His biggest headache right now, he said, was the horde of sanitary supply salesmen who daily descend to plague him. Obviously, here was a man not in love with his work, or could it be that some secret inducement made it more profitable for him to buy from one source?

A stop was next made at the offices of a company operating nine passenger ships and six freighters out of New York, and six freighters out of the West Coast and Panama. Here was an entirely different attitude and buying psychology. "We are ready to listen to any salesman who has an article, new or old, which he claims will perform the job better than the one we are now using," was the way the purchasing agent expressed it. "That's only doing our job. Naturally, we are not going to take just the salesman's word that his product is the best. But we'll give it a fair trial, and if it does the job better and the price is right, we'll use it."

At present, for cleaning walls, decks, floors, etc. of its ships, this line uses a trisodium phosphate product. However, for some time, the use of trisodium has been discouraged. "Too hard on the paint and woodwork," was the explanation. Flake soap is being urged as a substi-



tute. It is claimed that the soap flakes do the work just as well and are easier on the paint. But it has been difficult to get the members of the ships' crews to make the switch. According to the buyer, sailors want a cleanser which requires as little "elbow grease" as possible, and flake soap does take more rubbing than trisodium phosphate. Right now, about 40,000 pounds of the trisodium phosphate product are used a year, and about 7,500 pounds of flake soap. About 15,000 pounds of the trisodium figure are used for cleaning engine parts, which, of course, will not be replaced by soap.

All furniture and metal polishes used on board steamships must have the approval of the U. S. Department of Commerce. The Department of Commerce is chiefly interested in making sure that the polishes are non-inflammable. Aside from that, it was asked, what characteristics do you look for in a metal or furniture polish which make them suitable for use on your boats? "First of all," was the reply, "we want a polish that requires very little rubbing. Then one that doesn't get moldy, one which will not leave a gummy residue behind, one that will cover a lot of ground in a hurry, and, of course one that will give a bright lustre, and finally one that is cheap. Before a polish is put into use on any of our boats, it is graded on these points by the men who use it. If the product gets more first choices on these points than the old polish, it is supplied on all the ships. Of course, when you get right down to it, it's the crew that really does the buying. It makes the final decision. If the members of a crew don't like a product, nothing on sea or land can move them to keep on using it. And if they do like it, we generally buy it. As you can guess, this sort of system doesn't always make sense. Only recently, for example, we had a case where the crew on one of our boats raised a terrible fuss because we were using a particular brand of silver polish. They threatened to strike unless we got another. It turned out that there wasn't anything wrong with the polish, but the workers at the factory where it was made were on strike and the ship's crew acted out of sympathy."

This steamship company operates its own launderies, using a regular 88 per cent chip soap. The clothes are washed in a solution containing about 50 per cent of the soap and 50 per cent soda. Water softeners and bleaching agents must be used, it was explained, because many times the water used is obtained from European ports and is very hard. About 60,000 pounds of chip soaps are used a year. The company's ships are fumigated and disinfected throughout at each port of call by professional exterminators.

Mention of the exterminating industry, especially in New York City, was a particularly sore subject with this particular purchasing agent. "It's the biggest racket in New York City!" he exploded. "Fly-by-night peddlers come in here and want to bid on a ship job. I used to give them all a chance. But no more. They got to fighting among them-

selves and underbidding each other so much that they had to gyp us to make any kind of a profit. We were just kidding ourselves. We have found out by experience that for around $85 a boat we can get something that approaches a satisfactory job, but it is not what we want yet. We are planning eventually to do all of our own exterminating and fumigating. Why some of these exterminators have bid as low as $30 a boat and *guarantee* the results! They're a lot of fakers. It's a racket." Pyrethrum powder is used for insect control by the crew when the ships are at sea. He was asked if deodorants are used. "We operate on the principle that if everything is clean, nothing is going to smell," was the answer.

THE offices of a German steamship company which operates six passenger ships was the next stop. Like all foreign lines, most if not all of its purchases of soaps, cleansers, polishes, insecticides, disinfectants, deodorants, etc. are made abroad. A comparison of methods and products here and abroad is of interest. The German representative of the line said he was willing to pass along what information he had. It turned out to consist mostly of generalities praising the allegedly superior qualities of German soaps in comparison with those made in the United States. Facts and proof were few.

Perhaps the interview, especially in regard to disinfectants and exterminating materials, with the *S.S. Hansa* in full view outside the window, reminded him of a recent unpleasant incident in connection with the ship which caused him to be irritable. Last September the *S.S. Hansa* which is owned by the company, left Hamburg with 993 passengers and 400 members of the crew, when somewhere on the high seas 24 of the crew, including the kitchen help and dining saloon stewards, developed fever and nausea. Since February, 1937, certain ships entering New York have been allowed "radio pratique." This is the privilege of proceeding directly to the ship's pier without the necessity of anchoring off Quarantine for medical inspection of passengers and crew. All the ship's surgeon need do is wireless his lines' New York office 12 to 24 hours before docking, certifying that no case of dangerous or contagious disease is aboard, and the ship is allowed to pass directly up the harbor. In the *Hansa's* case last September, the surgeon decided that the fever and nausea among the crew were the result of inhaling hydrocyanic acid when she was last fumigated. So the *Hansa* docked and debarked her 993 passengers. An inspector of the U. S. Immigration Service went aboard, rightly suspected typhoid fever and ordered everyone quarantined. Bacteriological tests showed that typhoid had been aboard, and as a result, the *Hansa* lost future privileges of "radio pratique," and was compelled to return to Germany empty.

A soft potash soap, manufactured in Germany, is used on all of the company's boats for general cleaning work. It is used in quantities of one pound to five pounds of water. American-made soaps have been tried, but none, it was claimed, measured up to the superior qualities of those made in Germany. A sample of a potash soap bearing an American manufacturer's label was observed on a near-by desk. He said it was being given a trial on the German ships. "But it can't be as good as the soap we are already using," was the comment. "Why, in Germany we make a palm-olive toilet soap that beats any of the popular toilet brands made over here. And as for polishes, we made non-inflammable metal and furniture polishes long before it was ever thought of in the United States."

The German line has its own laundries aboard its ships operated by Chinese. A laundry soap containing "twice as much naphtha as any soap made in the United States" is used for the work. The water is supplied from artesian wells in Germany and softened. Bleaching agents are not needed since all the linens used on the ships are "made in the Rhineland and Czechoslovakia of such fine material that bleaching is unnecessary." The German ships, he said, have no moths, no flies, no bed bugs, no roaches. "Only an occasional army of mosquitoes from Jersey," was the comment. Pine oil disinfectants and deodorants which come from the Black Forest region are used extensively. They are, it is needless to add, "superior" to the pine oils which are produced from American forests, and are rarely used in the United States because of the high import duty. A German-made "milk soap" is used on all the boats for toilet purposes. When asked about the shortage of natural fats in Germany, he said that there was no shortage. The interview was terminated by an announcement to the effect that "very soon we are going to start using, for the first time anywhere, a floating salt water soap on all of our ships."

THE next stop was made at the offices of an American steamship line touching principally at South American ports. Here it was learned that trisodium phosphate was the cleaner most widely used on the ships. Approximately 400 pounds per boat every six weeks is consumed, totaling about 18,000 pounds a year. The trisodium material is used for cleaning walls, floors and decks. It was, until recently, also used in the kitchens, but that was discontinued because it was suspected of discoloring silverware. At present the company is experimenting with a yellow soap bar for kitchen use which is inclosed in a metal perforated container. The water for washing dishes is run through the container until it becomes sudsy enough to "cut" the grease. It has proved quite satisfactory so far and is very economical, it was said. For laundry, a soap powder is used which was said to contain 92 per cent soap. The ships' crews do all

of the laundering, mixing soda with the soap powder in the proportions it is felt necessary to do the job. The chief requirements looked for in metal and furniture polishes by this company are that they have the approval of the Department of Commerce, of course, and give a high polish with a minimum of "elbow grease." For insect and rodent control, professional exterminators and fumigators were formerly called in, but the results, it was declared, were far from satisfactory. Employes of the company handle the work at present, at an average cost, including materials, of around $90 a boat. It was claimed that the ships are now kept absolutely free of rodents and insects.

Officials of this company pointed out that their purchases of supplies, including soaps and cleansers, etc., was complicated by the growing capriciousness of members of the crew. One day the crew is perfectly satisfied with a certain brand of toilet soap and the next they want a different one. The news item appearing in *Soap* last month about the crew of a freighter striking because it was dissatisfied with the toilet soap with which it was supplied has had many parallels in the experiences of this company. Union activity is at red heat and the crews seem to use any pretext to stir up trouble.

REPRESENTATIVES of three more steamship companies,—two American and one British,—were called on, principally to note any interesting departures from the practices and procedures of those already interviewed. One of the American companies, operating 14 passenger ships, uses a regular soap powder made from cottonseed foots for general cleaning purposes. It was said to contain about 15 per cent soap. It is used for washing dishes, for laundry work, and for washing decks, floors and walls of the ships. This line mentioned termite trouble which it had not been successful in eliminating. Insect sprays had been used but they were not able to penetrate far enough to do any good.

Main dining saloon of the S. S. California of the Panama-Pacific Line.

The other American line, which operates 65 freight and passenger ships, owns the patent rights to a soap powder which is used for all general cleaning. For some obscure reason, it was reluctant to pass out any information about the product. Both of these companies use a liquid metal polish of petroleum base. Like the others, they said that the requirements sought in a metal polish were low price and ease of application. Both companies expressed complete dissatisfaction with the present commercial set-up in fumigating and exterminating. They do their own fumigating and exterminating work. One of the companies makes up its own pyrethrum sprays from extract, while the others buy a finished product.

The British company, like the German, purchases all of its sanitary products abroad. A soft soap with a potash base is used for general cleaning, which is said to be very satisfactory for cleaning the combination rubber and linoleum floor covering used on its ships. This company's ships, it was pointed out, are completely "rat-proof," a condition which had not been mentioned by any of the other steamship companies,—if true.

It is characteristic of the buyers for the steamship companies to purchase all of their supplies in small packages rather than in bulk containers. It has been found much cheaper. The presence of abundant quantities of a material is always a temptation to a sailor, who by temperament is somewhat irresponsible, to use more than is necessary. For example, one line which buys 40,000 pounds of a trisodium phosphate product a year, purchases it all in 9 ounce packages. Even then, it is felt there is much wastage.

All of the purchasing agents said that they welcomed salesmen with new products and new ideas. They are interested in products which make the clean-up work easier for their crews, even though the money saving is slight. They feel that if a product makes a job easier, it automatically makes for a saving since another pretext for bickering and discontent among the crews is removed, and, subsequently, prevents loss of time due to strikes. Steamship companies were reluctant to estimate the cost of maintaining cleanliness in proportion to the total operating costs of a ship, but most agreed that one per cent was a conservative estimate.

(*Turn to Page* 117)

FOR YOUR HOUSEHOLD SPRAY

Lethane 384

Synthetic Insecticide Concentrate

USE of Lethane 384 reduces manufacturing and standardization problems to a minimum. Stocks of this insecticide agent are never losses. Its cost is low and without fluctuation.

Lethane 384 household sprays bring repeat sales, for their action is especially rapid and sure against both flying and crawling household pests. These crystal-clear sprays give consistently satisfactory results.

Plan now to use Lethane 384 in your household spray. Lethane's widespread use is convincing proof of its value.

RÖHM & HAAS CO., INC.

222 W. Washington Square, Philadelphia, Pa.

Chicago • Kansas City, Mo.

Canadian Agent, P. N. SODEN & CO., LTD., *Lachine, P. Q., Canada*

MOTH SPECIALTIES

A discussion of moth products, good and bad, which have taken the chain stores by storm . . . their effectiveness and their limitations

By Ralph H. Auch

THE housewife's interest in moth repellants is sustained and apparently grows from year to year in spite of the rebuffs it gets. These rebuffs are manifold and run the gamut from worthless preparations produced by the uninformed to having her prized possessions, namely the cedar closet and cedar chest, decried as valueless. She spends her money freely for perfumed and tinted cakes of naphthalene and paradichlorbenzene, packaged in intricate and unique containers. Likewise she pays fancy prices for various moth repellant solutions offered with and without tricky dispensers.

If the housewife's purse is limited she finds much to entice away her dimes at five-and-ten and variety stores. These include the standard naphthalene "moth balls" and their modern counterparts such as balls pressed at half inch intervals on twine, sewn in stockinets for convenience, or pressed in conical chocolate drop shape. Chipped naphthalene and crystal paradichlorbenzene in fiber tubular cans, small blocks of the former wrapped in cellophane, discs with and without holes, cakes of each in individual "hang-up" containers,—all are there at the same price. Moth cakes suitably scented and discs with the hole for use on the coat hanger are at the dime store as stated, yet these same units continue to bring twenty-five and even fifty cents at some better stores and in the hands of house-to-house canvassers.

The pressing of moth cakes is quite simple, yet the cast type are still to be found on the market. This is both slow and costly, to say nothing of men working in and around molten naphthalene or para, and not to mention the loss of perfume. Mixing in of odor and color with the granular naphthalene and paradichlorbenzene is easily accomplished in any of the usual batch mixers. To keep down the amount of "fines", which are undesirable because of their adverse effect in pressing, it is best to use a pony mixer or other type with vertical mixing blades. Thus there is no tumbling which is conducive to breaking the crystals. For the same reason, mixing should be held to the minimum, i.e., just until the granules are uniformly surface tinted.

A limited survey indicates that the popular odors are lilac, rose, violet, bouquets and pine. A camphorous odor apparently also enjoys some call but is more popular in the granular form untinted. Powdered camphor in small percentage or camphor oil is suitable for use in pressed cakes while the former is better suited for use in granular products as the oil tends to cake the granules or make them greasy to the touch.

As for the perfumes, about one half of one per cent is the usual concentration. The dime store odors are quite ordinary and the lilac, for example, is little more than terpineol slightly touched up. Too much care cannot be exercised in the choice of the perfume and three to six dollars per pound is not too much to pay for the perfume oil. This is not extravagance, it is good business.

The colors should harmonize with the odor. For example, rose-scented cakes may well be pink, lilac should be lavender and pine may be either a pastel green or attractive amber. If the cake is to remain in its container in use colors may be chosen with a certain amount of abandon. If, however, the shape is a disc to be hung under the garment on a hanger or to be laid in the folds of blankets, etc. colors must be chosen with utmost care to avoid staining.

Alcohol soluble colors are safest on this score. They may be dissolved in about an ounce of alcohol (No. 30 specially denatured is quite suitable) per hundred pounds of material. Practical tests for staining should be made before adoption. Laying the discs between layers of fabrics is not enough. The tests should be made under pressure. A convenient method is to lay the discs between pieces of various wool fabrics then place them between two boards held firmly together with C-clamps.

The size crystal of paradichlorbenzene to use will be dependent upon the equipment at hand for pressing and can best be determined

D&O
ESTABLISHED IN 1798

"D & O" ESSENOL ACTIVATORS

"OT" (Oil type)

A COMPOUND of insecticidally active volatile oils and spreading agents, recommended for addition in small proportions to fly and other oil type sprays containing Pyrethrum, Derris, Cube and Rotenone extractives, to provide better distribution, greater penetration and increased efficiency.

"AG" (Agricultural type)

A COMPOUND of active volatile oils, wetting, spreading, emulsifying and oxidation retarding agents, all in one vehicle. For use in conjunction with the usual toxic extractions, in making sprays for water emulsions for more efficient horticultural use.

"D & O" MULSETAL

For water type sprays

AN improved *emulsifying* agent to be added to water type sprays for reducing surface tension and providing better wetting and spreading properties. It will satisfactorily emulsify several times its volume of kerosene products in all proportions of water.

Send for samples and information

DODGE & OLCOTT COMPANY

180 Varick Street . . . . . New York, N. Y.

BOSTON : CHICAGO : PHILADELPHIA : ST. LOUIS : LOS ANGELES

Plant and Laboratories . . . . Bayonne, N. J.

by the "cut and try" method. For ordinary shapes of fair thickness, regular refined chipped naphthalene is quite satisfactory. For intricate shapes such as octagonal with a hole in the center and of 3/8-inch or less in thickness, the slightly more expensive riced naphthalene will be found far better for pressing. Both the appearance and strength are improved and "throw outs" materially reduced by the latter.

Fairly dense satisfactory paradichlorbenzene cakes and reasonably good naphthalene cakes up to 3½ or 4 ounces in size have been observed that were produced on soap foot-presses fitted with a hand operated device for charging the die box with a uniform quantity of granulation. Naphthalene cakes pressed in this manner and subsequently momentarily immersed in tinted molten naphthalene are firm and will stand up in handling and in transit. Incidentally the surface crystallization is quite attractive and out of the commonplace.

Hydraulic presses and special heavy duty automatic presses are widely advocated for pressing. Entirely satisfactory cakes of both materials can be produced on a punch press. Suitable rotary devices for carrying the proper uniform quantity of material into the press and carrying the finished cake out where it is automatically pushed out of the die box must be provided. Likewise suitable safety guards must be installed as a punch press is a bad actor in the matter of accidents.

Generally less pressure is required for producing firm dense satisfactory paradichlorbenzene cakes than for the same size and shape when made of naphthalene.

The various containers and holders are so different in construction and assembly that they have little in common. Therefore they each offer an individual problem and no generalities can be drawn. Cellophane has come to be the widely used wrapping material, and justly so as the volatilization loss of paradichlorbenzene is negligible and of naphthalene practically nil when wrapped in cellophane.

In passing, exhaustive comparative age tests between moisture proof and plain cellophane as wrapping for cakes of both were made. It is interesting to note that the difference in weight loss was negligible even after two years (longer than a dealer's carry-over from one season to another) and the higher cost of moisture proof cellophane is entirely unwarranted.

LIQUIDS designed for moth damage prevention are available in many types that are for use in clothes closets, and the like. Where the bottle is inverted over a felt pad suspended in a perforated metal "hang up" container, is one type that has met with varied success. These are offered as a complete unit, i.e., bottle of active repellant complete with the dispensing contrivance. Sometimes refills are offered separately.

Typical of this class is the following formula:

	Parts
Paradichlorobenzene	34.0
Naphthanelene	5.5
Pine oil	66.5
Perfume oil compound	1.0
To make	100.0

This formula is entirely workable but may be adjusted to suit individual requirements. The ingredients are so highly odorous that a costly perfume is distinctly not warranted. By way of suggestion, spike lavender and pine needle odors. The container or holder is best not made of tin plate, but aluminum, copper plate or a plastic in cylindrical shape suitably perforated.

There are liquids and then more liquids for use in sprayers. There have been patents issued for about every conceivable type of moth product but the spray type appears to be a favorite so far as patents are concerned. Only two types, namely, the one which impregnates the fabric leaving no odor and no visual residue, and that tricky one that leaves a "frost" on the fabric for an hour or so will be discussed briefly.

Sodium silicofluoride is the favored salt for impregnating fabric for sustained moth proofing. Other complex silicofluoride salts have been employed and one patented solution uses sodium aluminum silicofluoride for its base. To facilitate penetration of the fabric, various wetting agents are used and practical tests indicate some have considerable merit. Patents effectively tie up many of these products.

To correct a mistaken notion it may be stated that the wetting agent while facilitating penetration and uniform dispersion is not required to prevent visible surface residue. A one-ounce sodium silicofluoride to the gallon of water solution has been heavily sprayed on closely woven woolen fabric repeatedly without a visible salt residue being left after drying. A simple typical formula follows:

	Parts
Sodium silicoflouride	1
Wetting agent	½
Distilled water	127

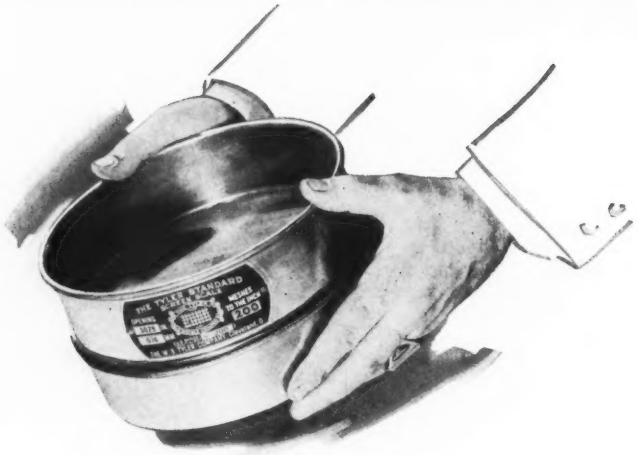
The above salt must be of a very pure grade as ordinary commercial grades cloud on standing even after thorough filtration. Several wetting agents are suitable although some including sulfonated oils also cloud the solution. This product is non-corrosive so the container in which it is marketed may be either a bottle or a tin can.

The second liquid type that is sprayed on leaving a "frosty" residue appears to have some psychological appeal. It will destroy moth worms which it contacts on infested fabrics but of course has no lasting repellant properties. A particularly showy product is built upon the two fumigants approved in Farmer's Bulletin No. 1353 of the Department of Agriculture, namely carbon tetrachloride and ethylene dichloride. It follows:

	Parts
Carbon tetrachloride	50
Ethylene dichloride	15
Paradichlorbenzene	35
To make	100

(*Turn to Page* 115)

SCREEN TESTED
for Fineness
to Insure a Better Kill



NOWHERE in the world will you find Pyrethrum and Derris Powders which are ground finer than those produced by McCormick. The microscopic fineness of these powders means that each ounce is broken up into a vastly higher number of killing particles, which stick more closely to the vital parts of insects, insuring a quicker, surer kill. . . . For further information address: The McCormick Sales Co., Baltimore, Md. In Canada: McCormick & Co. (Canada) Ltd., 454 King St., West, Toronto, Ontario.

McCORMICK'S
PYRETHRUM AND DERRIS POWDERS

★

Also Manufacturers of

DERRIS EXTRACT • DERRIS RESINATE • ROTENONE CRYSTALS

The Trend In FLOOR WAXES

By Dr. C. A. Tyler

A REVIEW of the floor wax situation and the lines along which the business has developed to its present stage, is not amiss at this time. The number of manufacturers and sellers has increased so markedly over the past few years, that a diversity of products and sharpened competition have quite considerably increased the complications in the wax business. Not so many years ago, the term was usually "floor polish," a designation loose enough to permit the sale of almost anything under the name. Even a simple solution of shellac in ammonia has been sold as "floor polish," but needless to say, second and subsequent sales were not easy. Mineral oil of almost any grade was dignified by the name of "floor polish," or floor oil, and mineral oil emulsions were also sold for the purpose,—and still are. These products at best represented merely a chance to sell something cheap at a good profit, and only helped to befog the issue. Today, when the term "floor wax" is used, the trade usually thinks of a modern water-emulsion self-polishing wax.

The original floor waxes were a mixture of waxes partly dispersed and partly dissolved in a volatile solvent. They were sold—and still are,—in both liquid and paste forms. They required the heavy labor of buffing and also could not be used on rubber tile or the various asphalt and mastic composition floorings which have become steadily more popular. As a consequence, water-base, self-polishing floor waxes have increased in importance until they now occupy the major position in the wax market. Fundamentally these products are all alike and are emulsions of wax and minor amounts of other materials in water under such conditions that when the water evaporates, the colloidal particles will coalesce to give a uniform film composed essentially of wax. The wax deposit must be smooth enough so that it will have a luster without additional polishing. This is the chief factor limiting the kind and number of ingredients that can be used successfully.

The first water-base polishes made, contained borax soap, shellac and carnauba wax, with a predominance of wax. Quite early in the development of the field, formulas were recommended in which soda soap was replaced by triethanolamine soap, with or without the addition of shellac, —wax, of course, being the most important solid ingredient. While the products of early manufacture did not wash off the floor readily, they were generally quickly attacked by water, forming white spots. Lack of water-resistance was considered their greatest drawback. In recent years there has been a progressive increase in the water resistance of the better products. While the early products sold for $2.50 to $3.00 a gallon, in quantity lots, their more widespread competitive manufacture has brought prices for good-quality waxes far below these levels.

The cost of water-base wax is controlled fundamentally by the price of carnauba wax, since this is not only an essential, but the principal and most expensive ingredient. Like other natural products, this is sold in varying grades. Probably few manufacturers make all of their waxes from No. 1 carnauba. Many use a great deal of No. 3 North Country or No. 3 Chalky. There is a spread of some 25 per cent in price between the cost of No. 3 Chalky and No. 1 Yellow. The chalky wax contains considerable dirt and even some water. The lower wax content, must be calculated in correlating the price difference with value received. Number one yellow wax gives a white emulsion, No. 3 a gray emulsion, because of the fine particles of dirt retained in the latter, even after melting. Some people have expressed a suspicion that there is paraffin in some refined carnauba waxes, but data to substantiate this are lacking.

The price of carnauba wax has been very erratic. Since there is a futures market in it at times, there have been conditions when those who were far-sighted enough to buy ahead, could manufacture a low-cost wax when the price of carnauba was high. Such manufacturers have figured the cost of their product on what they paid for carnauba wax, and not on what the latter would cost at current market prices. This is a failing of manufacturers in all lines, and is a common cause of market disturbances in finished manufactured products as

ever widening

The market for liquid insecticides made with DEO-BASE is an ever widening one.

DEO-BASE Reg. U. S. Pat. Off. **is one carrier which has all the properties vital to increasing the sales of your liquid insecticide. Chief among these are:—**

1. **Complete freedom from kerosene odor**
2. **Stability**
3. **Balanced fractionation**
4. **Correct evaporation rate**
5. **A flash point which meets all safety requirements**
6. **Controlled uniformity**

In your plans for 1938, select **DEO-BASE** Reg. U. S. Pat. Off. *as your carrier so that your finished insecticide can be sold everywhere, for use anywhere.*

L. SONNEBORN SONS, INC.

Refiners of White Oil and Petrolatum

Refineries: Petrolia and Franklin, Pa. Research Laboratories: Petrolia, Pa., and Nutley, N. J.
Manufacturing Plants: Nutley, N. J.

NEW YORK
88 Lexington Ave.

LOS ANGELES
215 West 5th St.

CHICAGO
400 West Madison St.

Canadian Representative: Charles Albert Smith, Ltd., Toronto.

STOCKS CARRIED IN PRINCIPAL CITIES

well as embarrassment to manufacturers when they later have to buy raw materials at higher prices.

The cost of raw materials alone for a good grade of water-base floor wax runs at the present time from about 28 to 36 cents a gallon. Factors involved in the spread are the percentage of wax used, and the extent to which shellac or other gums are incorporated, and quantities purchased in single lots. A lot of funny things have been done in the industry. Some manufacturers use other gums instead of shellac, the type originally used. There have been manufacturers who saponified ester gum, which is a synthetic glyceride of rosin, and so in effect have been using nothing but rosin soap. Some believe that gum thus is a material possessed of great virtue. The dictionary defines gum thus as a crude turpentine, but actually it is a pine oleoresin, which may be described with sufficient accuracy as a mixture of rosin and turpentine. Therefore anyone who objects to the use of rosin cannot logically use gum thus.

There has been talk of the use of cellulose esters in floor wax, and one product even carried a name which implied their presence. There has also been some discussion of the possible use of synthetic resins. Neither of these ideas recommend themselves unless it could be established that they endow the product with extraordinary properties. The reason is simply that the price is too high. Shellac is fairly inexpensive and rosin is cheap. Why go further? There have been claims made for some products that they contain nothing but wax and a "volatile emulsifying agent," which would therefore leave on the floor only a film of *pure* wax. These claims have yet to be substantiated.

CARNAUBA as the main wax ingredient of floor waxes, remains paramount. Not only is it the hardest wax, but it gives the necessary gloss to the dry film without buffing. In the competitive scramble to lower costs, and incidentally selling prices for emulsion waxes, almost every kind and type of waxy product has been tried in one form or another. The continued high cost of carnauba has been the great incentive to use something else,—but thus far, the substitutes have all been found wanting in one way or another.

The addition of paraffin, although used in some cheaper waxes, interferes materially with the harness of the wax film and the self-polishing feature. The incorporation of too high a proportion of gums also gives the same effect in some cases, and has other drawbacks. There have been products containing small amounts of carnauba and larger amounts of lower melting-point waxes, but they have been in the minority and not successful. If there were a satisfactory substitute for carnauba at a lower price, there is no doubt but that it would find wide use, but the fact that manufacturers universally stick to carnauba is evidence that it is essential. The proof of this appears to be in the increasing imports of this wax, which in 1937 amounted to fourteen million pounds as compared to 12,500,000 pounds in 1936.

Government specifications for self-polishing floor wax usually include a melting-point designation for the wax ingredient that limits it to carnauba wax, e.g., the U. S. Treasury Department specified a total solids content of a minimum of 17 per cent, and a maximum of 1 per cent of free oil. The solids should consist of 8-12 per cent of varnish gums, a minimum of 70 per cent of vegetable wax melting at not less than 175° F., no mineral wax or resin, and a maximum of 0.15 per cent of free alkali and 0.25 per cent of alkaline salts. U. S. Government specifications of November 15, 1937, gives a total solids content of not less than 12 per cent for regular self-polishing floor wax, and not less than 20 per cent for a concentrated grade, no free alkali may be present, and the softening point of the solids may not be less than 80° C. (176° F.). A specification of vegetable wax excludes such mineral waxes as ozokerite, ceresin, Montan wax and paraffin, and limits the choice of waxes to carnauba and candelilla. The former melts at 183-186° F. (84-86° C.), and the latter at 152-4° F. (67-8° C.). The high melting point specified prohibits the presence of more than a very small amount even of candelilla wax.

The emulsifying agent should not exceed one-third of the wax content, and the less that can be used, the better the product, from many points of view. Although soda soap is used as the emulsifying agent, it is apt to cause difficulty by its tendency to produce gelling on long standing. Some people believe it gives a grayish cast to the wax film after it has dried on the floor. The general tendency has been to replace soda soap. Triethanolamine soaps are finding wider use and prove very satisfactory. Diethanolamine and monoethanolamine soaps are also used. Mono-, di- and trimethyl amines have been used as saponifying agents in making the soap, as well as mixtures of amines. Ammonia water may also serve as the alkali. One difficulty with using ammonia is loss during manufacture due to volatility of the ammonia. An answer to this is to add the prepared ammonia soap to the melted wax, rather than mixing the fatty acid and wax and then the ammonia. Where possible, it is advantageous when working with ammonia soap at higher temperatures, to do so under increased pressure.

Ammonia soap, has the advantage of increasing the water-resistance of floor wax as is quite well known. This is because the soap decomposes during drying when the film is drying on the floor. The ammonia escapes, leaving the fatty acid component of the soap behind, which is insoluble in water. While triethanolamine soap is much easier to handle, it decomposes to a lesser extent than ammonia soap, and is rather easily re-emulsified from the wax film on the floor. To cover this point, some specifications limit the fractional part of total solids soluble in cold water to 15 per cent. The greater the amount of water-soluble material in the dried film, naturally, the less is its water resistance.

YOU'RE SURE OF *Quality*

WHEN YOU ORDER

PARADICHLOROBENZENE

from du Pont

When you order paradichlorobenzene from du Pont you may be sure that it will meet your specifications. It is always pure, white and uniform in quality. Available in four different granulations to suit your requirements. Ample stocks assure you of prompt delivery, even at short notice.

DU PONT
REG. U. S. PAT. OFF.

E. I. DU PONT DE NEMOURS & CO., INC., ORGANIC CHEMICALS DEPARTMENT, WILMINGTON. DEL.

Shellac, where it is incorporated in floor wax as a hardening agent, is added mainly because it increases the luster of the wax film. Borax is also often present still in a small proportion. This is to insure the alkalinity of the emulsion. And a reminder worth mentioning is that if free borax is present, rosin should not be included in the formula, as the alkali from hydrolysis will react with the rosin to form rosin soap. The presence of rosin soap tends to decrease the self-polishing properties of the product and also to cause gelling during storage.

A FEW general formulas, some of which are accepted and in common use, and some of which are not, are worth setting down for discussion and comparative purposes here. The general formula using triethanolamine oleate as the emulsifying agent, and the way in which it is usually handled is reviewed in the following:

	Parts by Weight
Carnauba wax	13.2
Oleic acid	1.5
Triethanolamine	2.1
Borax	1.0
Water	86.
Shellac, dry	2.2
Ammonia (28%)	0.35
Water	15.

The wax is melted and mixed with the oleic acid at about 100°C. (212°F.). The triethanolamine is added with stirring. Following saponification, the borax is dissolved in hot water and added with continuous stirring. Boiling water is next stirred in. Shellac is soluble in alkali and is heated in the ammoniacal solution until dissolved. The shellac solution should not be added to the hot wax. It is preferably added after both have cooled down. If the hot wax is subjected to rapid cooling, the particle size will be smaller and the product smoother and more satisfactory in use. The general principle which holds for crystallization that small crystals are formed during rapid cooling, and large crystals during slow cooling, can be applied here, even though the change which takes place is not the exact parallel of simple crystallization. Where the wax mixture is prepared in a jacketed kettle, cooling can be accomplished quickly by continuing stirring while running cold water through the jacket. The dissolved shellac is then added with stirring to the cold wax mixture. Of course, many variations of this procedure are satisfactory and are in common use.

A formula using monoethanolamine is as follows:

	Parts by Weight
Carnauba wax	36.0
Oleic acid	5.5
Monoethanolamine	3.0
Borax	2.7
Water	250.0
Shellac	5.0
Ammonia (28%)	1.0
Water	50.0

This is prepared in the same way as in the previous case. The melted wax and oleic acid are saponified with the monoethanolamine. The borax is dissolved in 50 parts of boiling water and added hot to the wax, kept at 95-100°C. A yellow paste forms which is continually stirred, then the rest of the water added, the whole boiled for a time, then cooled quickly. The dissolved shellac is added to the cold polish.

An ammonia soap is used in the following:

	Parts by Weight
Carnauba wax	10.
Ammonium oleate or linoleate	3.3
Ammonia, 26°Be.	0.2
Water	86.5

In this case the soap is stirred into the melted wax at 95°C. (203°F.), boiling water added, the whole stirred well and then cooled rapidly. The ammonia is stirred into the cold wax dispersion. The object is to work at as low temperatures as possible at each stage. If the excess ammonia were added to the hot wax, most of it naturally would volatilize and be lost. Shellac solution can be added to this product if desired and if a correspondingly smaller amount of water is used.

According to U. S. Patent No. 2,045,455, small additions of linseed oil and of carbitol, or both, given an improved finish and greater gloss to the final film. Their use is illustrated in the two formulas following:

	Per Cent
Carnauba wax	10.0
Monoethanolamine	1.4
Oleic acid	1.4
Borax	1.0
Linseed oil	0.5
Refined shellac	1.4
Ammonium hydroxide, sp. gr. 0.90	0.2
Water to balance to	100.

	Per Cent
Carnauba wax	8. —15.
Triethanolamine	1. — 3.
Oleic acid	0.75— 6.
Borax	0.5 — 3.
Shellac	1. — 5.
Ammonium hydroxide, sp. gr. 0.90	0.1 — 0.3
Carbitol	0.1 — 2.
Water to balance to	100.

These are made as outlined above. The linseed oil and carbitol are added to the wax mixture, the shellac dissolved separately and added cold. The proportion of water added to the wax emulsion can be varied within wide limits,—40 per cent to 80 per cent. The amount of water to be used in dissolving the shellac is not critical but should be about 4 times the amount of the shellac, as a minimum. The amount of ammonia is that necessary for solution of the shellac.

A WAXED floor is always more or less slippery and it is natural that ways have been sought for reducing this hazard. The most successful method of meeting this difficulty appears to be the incorporation of rubber. Although this is covered by patents, it seems the most logical thing in the world that some rubber be blended with the wax. Any chemist thoroughly conversant with the field will recognize those products having a similarity to rubber latex. Anyone who has worked with latex and encountered the difficulties of gelling, creaming and coagulation, will see a further analogy to rubber latex. One who has noted a good water wax in thin layers, or when diluted with water, showing a blue color comparable to that of skim milk, sees a still further analogy to latex. As described in U. S. Patent No. 2,030,055, the wax is made much as outlined above. Af-

(*Turn to Page* 115)

New!

Patented Jan. 25, 1938

MIST-IC
Pressure Sprayer

for permanent installation
in systems spraying

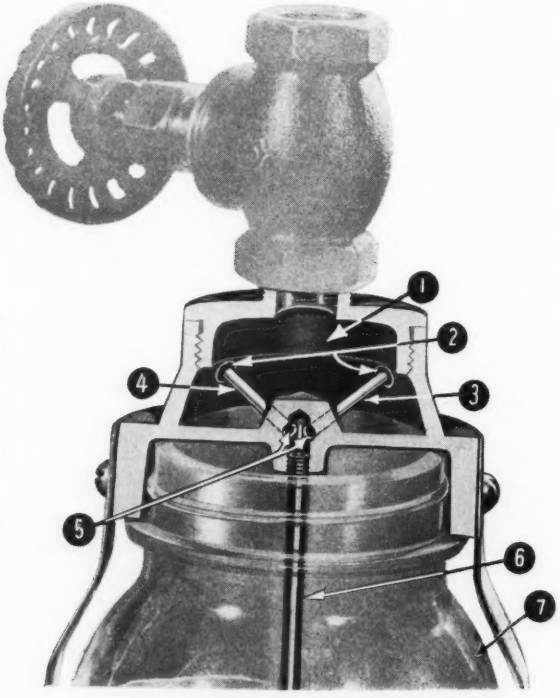
INSECTICIDES
DEODORANTS
FUMIGANTS

in creameries, dairy barns, food, tobacco plants, hotels, theatres, etc.

ADVANTAGES OF THE MIST-IC

1. Operates on steam or air pressure of 25 lbs. or more.
2. FOUR NOZZLES mounted at a 30 degree upward angle force spray solution twenty feet in every direction.
3. No drip as pressure which forms the vacuum completely surrounds spray solution tubes. (See diagram.)
4. Permanently adjusted nozzles not affected by expansion or contraction.
5. No moving or wearing parts.
6. When used on steam line, PREHEAT CHAMBER 5 (see diagram) vaporizes liquid solution, resulting in 100% atomization.

MISTIC Pressure Spraying Equipment is of particular interest to manufacturers of insecticides, deodorants, and other spray products, as well as sanitary supply and service organizations, as a means of increasing the sale of all spray products,—and assuring repeat business. Write us today for full information.



CROSS SECTION VIEW OF MIST-IC

MIST-IC application and operation—One MIST-IC unit is installed for each twenty thousand cubic feet of space. A permanent installation is made to a steam or air line within reaching distance from the floor.

The pressure from the steam or air line enters chamber 1 and is released through vents 2. The released pressure passing by the upper ends of tubes 3-4 creates a vacuum. This vacuum at the ends of tubes 3-4 creates a suction which draws the spray solution through PREHEAT CHAMBER 5 and main feed tube 6, emptying supply jar 7.

MYSTIC PRODUCTS CO.

417 North Fifth Street
Minneapolis, Minn.

The Buyer Writes an INSECTICIDE SPECIFICATION

(Part II)

By J. C. Booser

Harrisburg, Penna.

SUFFICIENT facts have been presented so that the task of putting the specification for liquid insecticide into usable form, may proceed. There are certain features in any specification that will be used by one kind of buyer, but may not apply to some other purchasing unit. Such features as occur will be included in the suggested specification either as alternate or optional requirements. Then, too, a proper specification form covers, by means of its various sections, all of the purchase procedure that a specification applies to, and by employing a regular form, a buyer's attention is automatically called to certain features that might otherwise be overlooked. The form used herein is a modification of that used by the Federal Government, and is considered to be well suited to the problem at hand, since it is probable the most complete form in use at the present time, and is generally well known and understood by purchasing agents. The proposed specification in full follows.

Specilcation for Insecticide, Liquid

(So-called Household Insecticide for Spray Application)

A. Applicable Specifications, Test Procedures, etc.

1. The following test procedures are applicable to this specification.

(a) Current Standard or Tentative Standard Methods of The American Society for Testing Materials applying to tests of the petroleum distillate base.

(b) Current Official Method of Test for Effectiveness, of The National Association of Insecticide and Disinfectant Manufacturers, Inc.

B. Types and Grades

1. This specification covers two types of liquid household insecticide for spray application. One of the types includes two grades. The types and grades are as follows:

Type A.—Fly Spray

Grade 1.—High degree of effectiveness.

Grade 2.—Medium degree of effectiveness.

Type B.—Insect Spray

High degree of effectiveness.

C. Use

1. Type A.—Grade 1.—This insecticide is intended for use, as a spray, for the control of house flies and mosquitoes. When used according to directions a high degree of effectiveness is possible.

2. Type A.—Grade 2.—This insecticide is intended for use, as a spray, to control house flies and mosquitoes. When used according to directions a medium degree of effectiveness is obtained.

3. Type B.—This insecticide is intended for use, as a spray, to control the more resistant common insect pests such as, cockroaches, bed bugs, clothes moths, ants, and carpet weevils, when used according to instructions.

D. Material and Workmanship

1. The materials used, in all of the types and grades of insecticide covered by this specification, shall be confined to those hereinafter specified; and such materials shall be combined in such manner, and amounts, so as to produce insecticide conforming to all the requirements of this specification, under the respective types and grades.

E. General Requirements

1. All types and grades of insecticide under this specification shall consist of an insecticidal principle, a base of petroleum distillate, and usually, an odor-masking agent. In the event that a so-called odorless insecticide is offered, the odor masking agent is not required. In certain instances, an organic solvent in amounts up to five (5) per cent is permissible. (See Section E, paragraph 5.)

2. Insecticidal Principle.—The insecticidal principle in all types and grades of insecticide under this specification shall be confined to the following materials, used singly, or in combination, at the discretion of the manufacturer.

(a) Pyrethrum or its extracts.

(b) Rotenone or rotenone-bearing extracts.

(c) Aliphatic thiocyanates.

Note: A combination of pyrethrum extract, and rotenone extracts is patented, and a license to manufacture insecticide containing this combination must be procured from the owner of the patent. (See Section I, paragraph 2. (e).)

3. Base.—The base shall be a petroleum distillate of the kind and grade commonly known as "deodorized kerosene," and shall con-

A better product should bring a better price. Insecticides are better when made with

NONODR

The completely deodorized base for liquid insecticides.

MADE RIGHT PRICED RIGHT

O'CONNOR & KREMP

11 West 42nd Street **New York, N. Y.**

Sole Agents

BRADFORD PENN REFINING CORP.
Clarendon, Penna.

DISINFECTANTS

PINE OIL DISINFECTANTS
COAL TAR DISINFECTANTS
TECHNICAL CRESOL COMPOUND

PINE COMPOUND
PINE ODOR DEODORANT

KLEEN-AIRE SPRAY
CHLORINE FORMALDEHYDE SPRAY
ETC.

INSECTICIDES

FLY SPRAYS
MOTH SPRAYS
CATTLE SPRAYS
PHENOL INSECTICIDES
PERFUMED INSECTICIDES
BEDBUG SPRAY
ROACH POWDER
ETC.

POLISHES

METAL POLISH
CHROMIUM CLEANER
FURNITURE CREAM
SELF-POLISHING FLOOR WAX
WINDOW CLEANER
FLOOR OIL
ETC.

WRITE FOR SAMPLES AND A COPY OF OUR LATEST PRICE LIST and CATALOG

THE CHEMICAL SUPPLY COMPANY

2450 CANAL ROAD CLEVELAND, OHIO

National Association of INSECTICIDE and DISINFECTANT MANUFACTURERS Incorporated 1914

PETROLEUM DISTILLATE

	Minimum	*Maximum*
A.P.I. Gravity	45.0	52.0
Saybolt viscosity (Universal @ 100° F.)	30.0	35.0
Kinematic viscosity, centistokes	1.5	2.8
Saybolt color	30	....
Flash point, "Tag" closed cup	135° F.	....
Initial boiling point	350° F.	390° F.
End point	480° F.	520° F.
Neutralization number	Neutral	
Corrosion, Tested by copper strip method given in Federal Specification VV-L-791a. 70° F. to 90° F. for 48 hours	Negative	
Odor	free from other odors. Free from kerosene odor, and practically	

form to the requirements shown in the table herewith.

4. Odor Masking Agent.—When used, the odor masking agent shall be a harmless material that will effectively mask any objectionable odor of the insecticidal principle, and the organic solvent, when the latter is employed. The resultant odor of the finished insecticide shall dissipate within the period of time stipulated hereinafter for each type and grade. Selection of the odor masking agent is left to the judgment of the manufacturer.

5. Organic Solvent. — When a combination of aliphatic thiocyanates and rotenone extracts are used, a suitable organic solvent in amounts up to five (5) per cent is permissible. The selection of this organic solvent is left to the discretion of the manufacturer. (See Section I, paragraph 2 (d).)

6. Safety Factor.—All types and grades of insecticide under this specification shall be harmless to man and warm blooded animals, when used according to directions.

7. Fire and Explosion Hazard.—All types and grades of insecticide under this specification shall have a minimum flash point of 125° F. as determined by means of the Tagliabue closed cup tester. For further precautions as to this factor see Section H, paragraph 2.

8. Corrosion.—All types and grades of insecticide under this specification shall not corrode metal surfaces, when used as directed.

9. Staining. — All types and grades of insecticide under this specification, when used as directed, shall not stain fabrics, wall paper, and general household furnishings that are not ordinarily affected by dry cleaning fluids; nor shall the insecticide affect painted, and varnished surfaces, or other types of finishes.

F. Detail Requirements

1. Type A.

(a) Grade 1.

(1) Effectiveness. — When tested in accordance with the method referred to in Section A, paragraph 1. (b) of this specification, in direct comparison with the NAIDM Official Test Insecticide, the product shall have a killing power of not less than ten (10) points in excess of that of the Test Insecticide.

(2) Odor.—When used as directed, the insecticide shall not impart a foreign taste, or odor, to exposed foods. The odor of the insecticide shall totally dissipate from sprayed areas within twenty (20) minutes after spraying. The odor shall not be objectionable.

(b) Grade 2.

(1) Effectiveness. — When tested in accordance with the method referred to in Section A, paragraph 1.(b) of this specification, in direct comparison with the NAIDM Official Test Insecticide, the product shall have a minimum killing power equal to that of the Test Insecticide.

(2) Odor.—When used as directed, the insecticide shall not impart an odor, or taste, to exposed foods, and the odor of the insecticide shall totally dissipate within fifteen (15) minutes after spraying. The odor shall not be objectionable.

2. Type B.

(a) Effectiveness — When tested in accordance with the method referred to in Section A, paragraph 1(b) of this specification, in direct comparison with the NAIDM Official Test Insecticide, the product shall have a killing power of not less than twenty (20) points in excess of that of the Test Insecticide.

(b) Odor.—When used as directed, the insecticide shall not impart an odor, or taste, to packaged foods. The odor shall totally dissipate from sprayed areas within one (1) hour after spraying. The odor shall not be objectionable.

G. Inspection, Sampling and Tests

1. Inspection. — Inspection will be made either at place of manufacture, or after delivery, at the option of the (*name of buyer*).

(a) When complete inspection is made at place of manufacture the (*name of buyer*) reserves the right of free access to such parts of the plant where the material is compounded and tested. The manufacturer shall furnish all labor, material, and apparatus necessary for making the biological, chemical, and performance tests.

(b) When inspection and test is made after delivery, the tests will be made by a laboratory, or laboratories, mutually acceptable to both buyer and seller. The cost of testing is to be borne by the seller.

2. Sampling. — A sufficient number of samples of the materials subjected to test shall be taken in such a manner as fairly to represent such materials.

3. Methods of Test.

(a) Effectiveness. — See Section A, 1(b).

(b) Insecticidal Principles.—Current generally accepted methods of chemical analysis shall be used when the buyer does not witness the compounding of the material.

(Note: Due to the lengthy procedures involved these methods are not given here, but they should be included in the specification when put into actual use.)

(c) Petroleum Distillate Base. —See Section A, 1(a).

(d) Odor.—(Standard pro-

ANOTHER WORD FOR *Quality* **WASHBURN'S**

ALL-AMERICAN-GYM-FINISH

The Essence of Perfection

ACCLAIMED BY ARCHITECTS, COACHES AND PLAYERS AS THE PERFECT FINISH.

APPROVED BY MAPLE FLOORING MANUFACTURING ASSOCIATION.

Detailed Explanation Given in New 52 Page Book Modern Floor Maintenance

SENT FREE TO JOBBERS ONLY

T. F. WASHBURN COMPANY

FLOOR MAINTENANCE DIVISION

2244 ELSTON AVE. CHICAGO, ILL.

NAPHTHALENE

CRUSHED–FLAKES–CHIPS–BALLS

Quality Plus Service

Arsenic	Soda Ash	Copper Sulphate
Paradichlorbenzene	Trisodium Phosphate	Thallium Sulphate
Caustic Soda	Pyrethrum	Paris Green
Sodium Fluoride	(all forms & Extract)	Carnauba Wax
Methyl Salicylate	Cresylic Acid	Japan Wax
Carbon Tetrachloride	Camphor	Essential Oils

H. H. ROSENTHAL CO., Inc.

25 East 26th Street New York, N. Y.

Tel.: AShland 4-7500

Cable Address: RODRUG, N. Y.

cedures to be developed to determine:

(1) Suitability of the odor,

(2) Dissipation characteristics,

(3) Food contamination tendencies and subsequently embodied in the specification. In the interim each buyer will have to devise some method and present it fully in the specification when it is used.)

(e) Organic Solvent. — Current, generally accepted methods of test for the particular solvent shall be used.

(f) Flash Point of Finished Insecticide.—Shall be determined in the usual manner in the Tagliabue Closed Cup Tester.

(g) Corrosion. — (Standard procedure to be developed. In the interim, the buyer will be compelled to select one of the several orthodox immersion test procedures available now, or devise a test applicable to insecticide. In any event the test procedure should be shown, or definitely referred to in the specification as used.)

(h) Staining Action.—(Need for a standard procedure, meantime each buyer will have to devise his own, stating it in detail in the specification.)

H. Packing and Marking

1. Packing.—(These requirements should be inserted to suit the needs of each buyer. For the sake of illustration, the packing requirements applying to the purchase referred to previously are hereby given.)

"New containers of the following capacities and description shall be used, and the packing shall be done in accordance with good commercial practice. — 1-gallon cans, 5-gallon cans, 30-gallon (approx.) drums, 55-gallon (approx.) drums."

2. Marking. — (Details, regarding each buyer's particular needs should be inserted here. Again, to illustrate, the marking requirements applying to the purchase referred to previously will be given.)

"Each drum and carton shall have plainly marked thereon, the name of the material, type, grade (in the case of Type A insecticide), quantity contained therein, the contract or order number or numbers, the name of the contractor, and the name and address of the receiving party as shown on the contract or order.

"Each drum and can shall have marked thereon, the name, type, and grade (if necessary) of the material, name of manufacturer, and complete instructions for the safe and proper storage, handling, and use of the contents."

I. Notes

1. Samples with bid.—Since the manufacturer is allowed to select the odor masking agent, subject to approval by the purchaser, it will be necessary for each bidder to submit two samples, of not less than one pint each with the bid in order that the suitability of the odor can be determined. A bidder may submit more than one odor if he so desires.

2. Affidavit with bid.—Each bid must have attached thereto an affidavit bearing the following information.

(a) The name, location and daily capacity of the plant where the insecticide will be made.

(b) Information as to the most convenient facilities, in relation to plant location, for the complete testing of the material in accordance with the procedures called for under this specification.

(c) If it is proposed to furnish a so-called "odorless insecticide" under Type A, a statement guaranteeing that no objectionable odor will develop in the product within one year after date of shipment, when stored under common warehouse conditions.

(d) If an organic solvent is used sufficient evidence must be presented to show that it is harmless to human beings and warm blooded animals under conditions of this particular usage.

(e) If the product bid upon contains the patented combination referred to in Section E 2, the bidder shall state whether or not he is licensed to manufacture same.

3. Requirements applicable to various units of the buyer's organization.—(Optional, subject to needs of each buyer.)

4. Instructions to requisitioning units of the buyer's organization. —(Optional, subject to needs of each buyer.)

5. It is believed that this specification adequately describes the characteristics necessary to secure the desired materials, and that normally no samples prior to award, except those desired for the odor requirement, will be necessary, to determine compliance with this specification. If, for any particular reason any other samples with bids are required, they should be specifically asked for in the invitation to bid and the particular purpose to be served by the samples should be definitely stated. The specification is to apply in all other respects.

6. Copies of this specification can be obtained (*state where and what the charge is, if any*).

Conclusion

The foregoing specification is admittedly open to criticism, but nevertheless, it is believed to be an improvement on the current NAIDM specification, and several others that have come to the writer's attention. Some of the criticism will be directed against its length, and apparent complication, when compared with the NAIDM specification, but if careful and unbiased study is given to the problems involved, it will be realized that in order that the buyer may protect his interests, careful, detailed treatment is necessary. Furthermore, it is realized that it is incomplete as regards methods of test for those requirements where standard procedures are lacking; however, comparatively simple tests can be improvised to take care of this for the time being.

For instance, in testing the samples submitted with bids for suitability of odor, a small room and a spray gun is all that is required. Care must be taken, of course, to air the room thoroughly after testing each sample. It is also advisable to have several persons enter into the judgment of odor, and selection should be

Increase Your Profits

LINOLEUM RUBBER TERRAZZO CLEANER

made by

FEDERAL

A Superior Product

1. Federal Linoleum, Rubber & Terrazzo Cleaner is not an ordinary scrub soap.

2. It does not contain strong alkalies which are injurious to the surface upon which it is applied.

3. Efficiently removes dirt, grease and previous coats of water wax without removing the sealer coat and without directly affecting the floor surface material itself.

4. Actually contains a sufficient wax content to produce a wax film after the cleaning process has been completed.

5. Can be buffed so as to produce a pleasing lustre, and where lustre in self-polishing waxes is not important, it can be sold as a finishing material. By that we mean that the material can be actually applied on the floor as an ordinary self-polishing wax would be applied, and although it will dry with a dull finish, this finish can be buffed to a nice high polish with an electric buffing machine.

6. Can be incorporated with soaps to produce other specialty items.

7. In itself produces a hard, elastic, durable finish.

8. It is inexpensive when used according to our directions.

Send for Testing Sample

Our rigid laboratory tests together with practical service tests have proved Federal Cleaner to be far superior to any product hitherto available. Try it yourself. Samples will be sent upon request.

FEDERAL VARNISH CO.

DEPT. 48 331 S. PEORIA ST., CHICAGO

"FUMERAL"

INSTANT DIFFUSER

Patented Sept. 18, 1934

Additional Patents Pending

For the instant diffusion and powerful circulation of various brands of fly sprays, insecticides, deodorants and fumigants.

FUMERAL USERS FROM COAST TO COAST IN VARIOUS INDUSTRIES REPORT SUBSTANTIAL SAVINGS

Inexpensive -- Efficient -- Economical

● Fumeral Equipment is Sold by Leading Manufacturers of Insecticides, Deodorants, Disinfectants and Fumigants who also report that FUMERAL Equipment has Increased their Sales.

IT, THEREFORE, WILL PAY YOU TO INVESTIGATE!

FUMERAL COMPANY

RACINE, WIS.

Manufacturers of Fumeral Stationary and Portable Diffusers

based on the one that meets general approval. To the large buyer of insecticides of this type, the specification with minor changes and additions will prove to be a good medium whereby intelligent and economical purchases may be made, providing, of course, that the purchase procedure is augmented by adequate inspection and testing of the material procured.

To those persons interested in eventually making available to the buyer a nationally recognized specification, the suggestions embodied herein may possess some definite value. It should be borne in mind, too, that the specification advanced here is offered chiefly as an expedient, and possibly a new starting point for additional work on the subject. Even a specification which nearly approaches perfection at some particular time, may soon be subject to revision if it is to keep pace with industrial developments, and users' demands. In the matter of developing standard test methods for staining, corrosive action, contamination of food, dissipation characteristics, and other performance requirements, it appears that the Peet-Grady chamber used for the biological test would be an excellent place in which to evaluate products as regards these requirements; however, any further discussion of this testing angle must be deferred at this time.

It is sincerely hoped that this frank treatment, of the much "cussed and discussed" subject of specifications for household insecticides, as a speaker recently, and perhaps rather aptly, described it, will aid in closing the gap which seems to exist at the present time between manufacturer and consumer. To anyone familiar with the fine and exacting art of promulgating commodity specifications, it is only too apparent that until both sides of the situation are given full consideration, it is utterly impossible to prepare an adequate specification, no matter whether it be for pine oil disinfectant, water emulsion floor waxes, laundry soap or household insecticide.

Trend in Floor Waxes

(*From Page* 107)

ter the emulsion is formed and shellac added if desired, latex or a similar aqueous dispersion of rubber is added in an amount equal to 10 per cent of the wax present. The result is an emulsion which "applied to the floor in the usual way and on drying and polishing, will give a high grade waxed surface having the desired translucency, lustre, light color etc., but having a high coefficient of friction." The patent implies that although rubber latex can be added to a water-base floor wax, the dried film will require polishing. The patent deals more particularly with addition of rubber to volatile-solvent wax.

In U. S. Patent No. 2,088,795 granted August 3, 1937, an improved anti-skid floor wax composition is described which is self-polishing. The patent states that waxes containing raw rubber or natural latex stabilized with ammonia, are not self-polishing, also that a floor coated with such a composition becomes sticky with service. The water-base wax is prepared in the usual way, and when cool, *vulcanized* latex is added. Several patents cover the method for preparing the vulcanized latex, notably U. S. Patents 1,156,184, 1,443,149, 1,502,686, 1,823,131 and others. The wax preparation and latex only require stirring to produce homogeneity. Further claim is made that the film of wax left on the floor is completely uniform because both the wax and vulcanized latex are slightly alkaline, colloidal suspensions in water so that when evaporation takes place, the wax and rubber coagulate in the correct ratio. The wax film may contain from 5 to 30 per cent of vulcanized rubber. A preferred composition is 10-15 parts of vulcanized rubber solids to 90-85 parts of wax solids.

Although it is possible to introduce variations into waxes not intended to meet definite specifications, those which appear to stand the test of time and use are based on simple formulas such as those described. The ingredients which go to make up the soap can be varied somewhat, and gums other than shellac can be used. Hard mineral waxes although the object of much research, are not widely used because they do not seem to be satisfactory in general or in meeting the primary requirement of keeping the product self-polishing. The mixture of true waxes and paraffin used in a volatile-solvent type of floor polish have no place in a water-base wax. Success with the latter depends on following a few guiding principles, which are not as simple as they might appear to the casual observer, whether he be a chemist or not.

Moth Specialties

(*From Page* 101)

It is a simple solution of the paradichlorbenzene in the two solvents, the solution being quite easily affected. In use, a spray gun of course is employed and the upholstery, garment, etc. is saturated. As the solvents volatilize a "frost" is formed which gradually disappears in one to two hours. There is little or no residual odor.

Various granulations of both paradichlorbenzene and of naphthalene are offered in convenient shaker top canisters. This may or may not be scented. One product has certainly gone the full way in throwing an air of mystery around it. Sifted wood chips about the size of the granulation of the active ingredient have been added to the extent of about four per cent. Further, before admixture these chips have been impregnated with a blend of cedarwood and cedar leaf oils.

IN conclusion, it is obvious after reading the foregoing that the insecticidal merit of the products has not been touched upon. Rather, it has been a brief discussion with suggested formulae of those types that are enjoying present favor of householders. That the effectiveness of many moth products in actually killing the moths and their

BREUER'S TORNADO ELECTRIC SPRAYERS
get you reorders because they are the most efficient and durable insecticide sprayers ever built. Supply your customers with the best.

The New Tornado Model 36

Automatic Time Switch—Volume Air Control
One Gallon Capacity, 1-3 H.P. G. E. Universal Motor

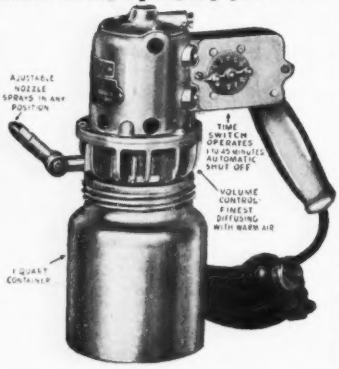
1/3 H.P. G.E. MOTOR
TIME SWITCH OPERATES 1 TO 45 MINUTES AUTOMATIC SHUT OFF
ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
COMPRESSOR TYPE
1 GALLON CONTAINER

Here is the finest sprayer ever built. Similar to the now widely used Tornado Model 54 and retaining the automatic time switch, volume air control and adjustable nozzle features, the new Model 36 will spray a big volume of insecticide great distances in finest gas formation.

The patented principle of heating and compressing material does the trick. Just the sprayer you need for covering large distances and penetrating with the finest gas every possible source of insect existence.

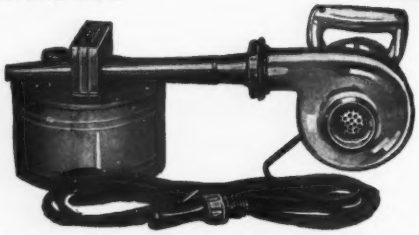
Get the facts on this sprayer before buying!

Also most complete line of electric sprayers to meet every spraying problem.


ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
TIME SWITCH OPERATES 1 TO 45 MINUTES AUTOMATIC SHUT OFF
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
1 QUART CONTAINER

MODEL 54—
1 QT. CAPACITY
It features an automatic time switch set at any point from 1 to 30 minutes — sprays desired amount without any attention whatever — automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. MODEL 53 same as Model 54 except does not have automatic time switch.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8' to 10'. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20' of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18' to 20'. 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.
862 Blackhawk Street Chicago, Ill.
We do not sell insecticides. Our business is manufacturing sprayers.
Patented in U. S. A. and Foreign Countries

THE MODERN
AIR FORCE PLUNGER

EASIER TO SELL
LARGER PROFIT

This new plunger is the most effective ever developed for all types of plumbing fixtures and drains. Users tell us it has done an excellent job where old type plungers have failed completely.

Start now to save your customers time and money by showing them the Air Force — it sells on sight or simple demonstration. Start now to cash in on the larger profits available by selling the Air Force.

Write Us for Our Attractive Sales Plan.

Sold Exclusively Through Jobbers.

CHICAGO SANITARY PRODUCTS CO.
3100 S. THROOP ST. CHICAGO, ILL.

PARADICHLORBENZENE

ALKALIES

TRISODIUM PHOSPHATE

CARBON TETRACHLORIDE

▼

JOHN A. CHEW
INCORPORATED
60 East 42nd Street New York
MUrray Hill 2-0993

larvae may be subject to serious doubt, is evident. The very design and size and composition of many products on the market precludes their being a real insecticide or a genuine protection against moth damage. A strong odor of any of the materials used in moth products is of no value in repelling moths, as the worms have been found feeding on woolens within a few inches of the crystals or liquid. The vapors must be of sufficient concentration for a considerable time actually to kill the moth or the worm. This concentration usually implies an airtight chest, closet, or other container, and it is under such conditions where these moth specialties have real protective value. Merely to hang a few-ounce cake of material in a closet or to spray clothing or blankets with a solution of naphthalene or para, usually means that the effect is confined to deodorizing, and is more psychological than insecticidal.

The fault has been for some time past that manufacturers have claimed too much for these moth specialties. Their labels have implied that they were effective insecticides in ordinary closets. This has brought some contacts with the Department of Agriculture which have not been altogether pleasant for the manufacturers. These products, however, do have a very definite value when properly used. More emphasis should be placed on their freshening and improving the odor of closets, rooms, etc. for it is here where they are a very pleasant addition to living. For use in connection with the storage of woolens, carpets, etc., recommendation that they be used in conjunction with regular insect sprays, or special pyrethrum moth sprays, should make their position more secure, and also when used, the recommendation that they be used in sufficient quantity in closed spaces, must not be overlooked. For after all, these moth specialties are cheap enough at the present time that they may be used freely and at the same time economically. It is a problem for the manufacturer to change his angle of attack on his market, but if he does, he will probably be better off in the long run.

Steamship Market

(*From Page 97*)

IN order to get as complete a picture as possible of the cleaning problems aboard the ships, several stewards and common sailors, the men who eat and sleep and work aboard the boats, were asked their opinions. They were all questioned off the boats, in fact in the dockside cafes along the waterfront, and were able to speak quite freely. Sailors emphatically do not approve of trisodium phosphate. They did not care, they said, how good a cleaner it is,—they claim that it burns their hands. And as for following any dilution directions set up by the commissary departments, — one steamship company instructs its crews to use two tablespoonfuls of trisodium phosphate to a pail of water,—that was the subject for a big laugh. They used whatever they felt like, they said.

Probably the question of whether they had roaches on their boats or not received the biggest laugh. Well then how about bed bugs? they were asked. "You can't have both roaches and bed bugs," said one. According to his theory, convenient if true, the two do not get along well together, and the roach eventually drives away the bed bug." "The best kind of a ship is the one I work on," said another, "it carries sulfur. We never have any bugs." The sailors said the best cleanser for decks and floors on a ship was sand and saltwater. And the best metal polish, they added, is soap stone and kerosene. And thus it goes among the common sailors,—their views dictated mostly by ignorant observations.

Taken as a whole, and with a minority of exceptions, the large steamship companies, like many other large consumers of cleaning and sanitation products, do not know any too much about the products which they buy and use. Their purchase and use is surrounded by so many complexities, mostly beyond the realm of the purchasing agent,—a high type individual,—that genuine merit as determined on a true technical basis plays little part in their selection. In this regard, steamship companies probably operate at a worse disadvantage than do the railroads, large hotels, institutions, and the like.

Chlorine Antiseptics

A study of the literature on chlorine antiseptics shows a marked lack of agreement in regard to the relative germicidal efficiencies of different compounds and the mechanisms of their germicidal action. Bacterial spores are very suitable for studying the factors affecting the germicidal properties of chlorine compounds.

In experiments with chloramine-T, it was found that doubling the concentration reduced the killing time approximately one-half, and that increasing the temperature 10° resulted in a killing-time reduction of 71.5-82 per cent. Changes in pH value had a very marked effect on the germicidal properties, the more acid reactions being more effective. Hypochlorites were more markedly affected by changes in pH, temperature and chlorine concentration than was the case with chloramine-T. Chloramine solutions were not influenced as much by changes in pH as were hypochlorites and chloramine T. For a given chlorine concentration, chloramine-T exhibited the weakest germicidal action. In solutions more alkaline than pH 9.5-10, monochloramine was more germicidal than hypochlorites; in less alkaline solutions hypochlorites were more germicidal. In disinfection with hypochlorites the concentration of hypochlorous acid was the significant factor. It was not significant with the chloramines. Disinfecting action for all compounds is associated with the presence of a positive chlorine atom. David Charlton and Max Levine. Iowa Eng. Expt. Sta., Bull. **132**, 60 pp.

A SONG of SPRING CLEANING

SUNG THE YEAR AROUND

(To the tune of "ADDED PROFITS")

No. 170—Portable Soap Sprayer

Make floor cleaning pay
With your soap and spray.
First you spray it on—
The battle's half won:
Then you mop it up—
The job is all done.
Without wear and tear
Takes the rub out of scrubbing.
There's a saving of time,
No dirt left, nor grime.
Write Dobbins today
About this quick easy way!

S122G or S112G
2 or 3½ Gal. Capacity

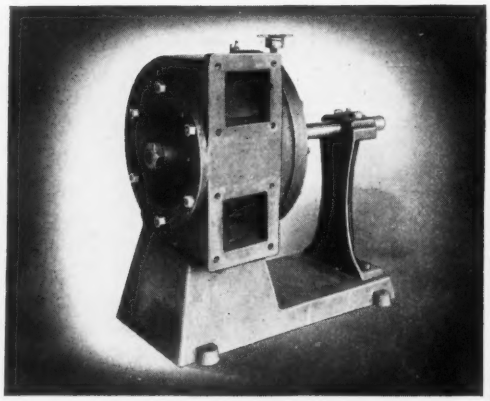
DOBBINS MANUFACTURING COMPANY NORTH ST. PAUL MINNESOTA

Special Grades of
Coconut Fatty Acids
for

TOILET SOAPS
SHAMPOO SOAPS
SHAVING CREAMS

Also a complete line of Vegetable and Animal Oils Fatty Acids

WECOLINE PRODUCTS, Inc.
15 EAST 26th ST. NEW YORK



Over 600,000 AGO!

This is the original Viking Pump. Although pensioned away today in a corner of the Viking Plant it is still mechanically good . . . still capable of a full day's work. Built in 1907, it has served as a splendid forerunner to the more than 600,000 Viking Rotary Pumps which have followed.

Many Viking Pumps are successfully serving the Soap Industries. Here they are earning enviable records in handling soap liquors, greases, oils, lotions. Get acquainted with Viking's complete line . . . write for bulletins.

VIKING PUMP CO.
CEDAR FALLS, IOWA.

News.....

Foster Leaves Woolworth

C. C. Foster, Jr., who for the past thirty-odd years has been in charge of the purchase of insecticides and other similar household products for F. W. Woolworth & Co., New York, resigned early last month to establish his own business as merchandising counsellor with offices in the Woolworth Building, New York, specializing in chain store merchandising problems.

Textile Chemists Hear Back

An address on "Protection of Wool Materials Against Moth Ravages" was a feature of the meeting of the New York section of the American Association of Textile Chemists and Colorists held March 25 at the Chemists' Club, New York. The speaker was E. A. Back, principal entomologist on insects affecting man and animals in the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture. The address was illustrated with lantern slides. An informal dinner preceded the meeting.

Wood Ridge Expands

Wood Ridge Mfg. Co., Woodridge, N. J., manufacturer of insecticide and fungicide preparations, has recently taken over Lethelin Products, a manufacturer in the same field, formerly located at Manhasset, N. Y. The acquired organization will become a division of Curex, Inc., an affiliate of the Wood Ridge organization.

New U. S. Insect Booklets

Three new booklets by Dr. E. A. Back, well-known entomologist of the U. S. Department of Agriculture have recently been issued by that department. They cover the habits and control of roaches, clothes moths, and ants. They are known as Leaflets No. 144, Cockroaches; No. 145, Clothes Moths; No. 147, Ants. Copies may be secured at five cents each from the Superintendent of Documents, Washington, D. C.

Here are Fred Hoyt, and Mrs. Hoyt, picking oranges in a grove at Cocoa, Florida, last month. When Fred is working, he is president of the Frederick Disinfectant Co., Atlanta, Ga. Photo by Campbell Baird of Baird & McGuire.

Publishes Article on Pyrethrum

A. Edison Badertscher, chief entomologist, McCormick & Co., Baltimore, is the author of an article, "Pyrethrum Insecticides", in the January number of the Spanish publication, *La Hacienda*.

Simmonds Returns from Trip

George L. Simmonds, head of U. S. Sanitary Specialties Corp., Chicago, returned recently from a winter vacation in Honolulu, T. H. On his way back Mr. Simmonds spent considerable time in San Francisco and Los Angeles, arriving at the latter place just in time to be in the midst of the flood. While in Honolulu Mr. Simmonds appointed Lewers and Cook to represent U. S. on soap dispensing systems and Ralph Olson to represent the company on its line of sanitary chemicals.

Kenya Pyrethrum Output Up

Exports of pyrethrum flowers to the United States for 1938 will exceed those of 1937 by 50 per cent, according to the American Consulate at Nairobi, Colony of Kenya, in Africa. The exports of pyrethrum flowers from Kenya, which increased from 206 long tons in 1935 to 1,165 long tons in 1936, declined in 1937 to 947 tons, owing to production difficulties caused by the heavy rains during certain periods of the year, and to drought at other periods. The exports to the United States, the principal buyer, totaled 735 tons in 1937 as compared to 1,055 in 1936. The anticipated increase in 1938 is based on the considerably larger area planted in pyrethrum.

Auch Expands Activities

R. H. Auch, formerly superintendent of the American Products Co., Cincinnati, and well-known in the household products trades, who during the past year has been in charge of the bottling division for the Seagram and affiliated distilleries at Lawrenceburg, Ind., is now also in charge of the rectifying and blending divisions of the company. (An article on Moth Specialties by Mr. Auch will be published in the next issue of *Soap*.)

Fight Pennsylvania Law

Plans to go into the Pennsylvania courts and obtain an injunction against the enforcement of the new insecticide registration requirement of the state law, were laid at a meeting of the Board of Governors of the National Association of Insecticide & Disinfectant Manufacturers, held on March 3 at the Hotel Biltmore, New York. After discussion of the Pennsylvania situation, the Board voted an appropriation of $250 to cover the expenses of the legislative committee in this connection, to be spent at the discretion of C. L. Fardwell of McCormick & Co., chairman.

The Board at its meeting also discussed preliminary plans for the annual summer meeting to be held at Lake Wawasee, Ind. on June 13, 14, and 15. It also planned to obtain the reactions and criticisms of

Buckingham

Invites you to join the many satisfied customers who are now marketing our quality WAXES and POLISHES under their own labels.

(We Print the Label)

Send for Samples and Quotations Today

—♦ ♦—

BUCKINGHAM WAX CORP.
VAN DAM STREET AND BORDEN AVENUE
LONG ISLAND CITY NEW YORK

"Profits" or "Headaches" in TERMITE CONTROL?

WITH the big season for termite control jobs at hand, there are profits to be found in this work if you are properly equipped with materials, equipment and experience. If you are not thoroughly up to the mark on all three points, substitute "headaches" for "profits."

Our organization is well versed in all accepted methods of termite control and is prepared to supply you with raw materials, finished products, equipment or counsel, any or all of which may be needed on that termite control job that has been puzzling you. Let us help you substitute "profits" for "headaches."

Everything for the Professional Exterminator

EXTERMINATING MATERIALS CO.
710 Amsterdam Ave. New York, N. Y.

H. de Sola e Hijos

Exporters of
Genuine El Salvador Balsam

"BALSAM PERU"

★

Satisfactory deliveries over a period of more than twenty years

★

SAN SALVADOR
EL SALVADOR, C.A.

OILS - CHEMICALS - FATTY ACIDS

COMMERCIAL OLIVE OIL
OLIVE OIL FOOTS
RED OIL (Oleic Acid)
TEASEED OIL
MUSTARD OIL

We invite your inquiries regarding the above products

E. M. **SERGEANT**
Pulp & Chemical Company, Inc.
Empire State Building, New York, N. Y.
Established 1867

71 YEARS SUPPLYING THE SOAP AND ALLIED INDUSTRIES

buying agencies of the new Association specifications by sending a questionnaire to several thousand buyers of federal, state, and local institutions. Proposed changes in the by-laws were discussed and approved. Two new studies by the Disinfectant Scientific Committee now being undertaken were announced by Dr. Emil Klarmann to cover sterilization of surgical instruments by disinfectants, and the use of germicides in prevention and cure of athletes' foot. A new sub-committee of the Insecticide Scientific Committee was planned to study and coordinate the various chemical methods used in the evaluation of pyrethrum.

J. L. Brenn of the Huntington Laboratories, Huntington, Ind., president of the Association, presided at the Board meeting. Others present were W. J. Zick of Stanco, Inc., New York, vice-president; John Wright, secretary; John Powell of John Powell & Co., New York, treasurer; W. B. Eddy of the Rochester Germicide Co., Rochester; Henry Nelson of the Chemical Supply Co., Cleveland; John Curlett of McCormick & Co., Baltimore; H. W. Hamilton of the White Tar Co., Kearny, N. J.; N. J. Gothard of Sinclair Refining Co., So. Chicago, Ind.; R. H. Young of the Davies-Young Soap Co., Dayton, O.; Gordon Baird of Baird & McGuire, Inc., Holbrook, Mass.; Clarence Weirich of C. B. Dolge Co., Westport, Conn. Committee chairmen present at the meeting included C. L. Fardwell of McCormick & Co.; Dr. Alfred Weed of John Powell & Co.; Robert S. Solinsky of the National Can Co.; Dr. Emil Klarmann of Lehn & Fink, Inc.; and R. F. Wilson, attorney.

Gets FTC Complaint

Hild Floor Machine Co., Chicago, was recently served with a complaint by the Federal Trade Commission charging the use of unfair methods of competition in the sale of rug and carpet cleaning machines. The specific charges are that Hild Floor Machine Co. falsely represents in its advertising that its product will flawlessly clean the dirtiest carpets and rugs while they are on the floor, removing all grease and grime, and that the shampoo solution used, which is fed from a tank on the machine and applied by a motor-driven brush, has properties enabling it to evaporate immediately, taking all grease and grime along with it and leaving the carpets and rugs dry, bright and clean without rinsing. According to the complaint, the use of the shampoo preparation applied by Hild machines to tacked-down carpets and rugs does not remove all grease and grime without rinsing, nor does it accomplish the other results claimed.

The program for the 24th annual summer meeting of the National Association of Insecticide & Disinfectant Manufacturers is being planned with a view to the meeting being held at a resort hotel this year,—June 13, 14, and 15 at The Spink-Wawasee, Lake Wawasee, Indiana. Business sessions will be held each morning only from nine to twelve, leaving the afternoons open for golf, horse-back riding, swimming, tennis, and sailing. View of some of the small boats which can be rented at Lake Wawasee with the hotel in the background.

COMING!

Here are a few of the subjects which will be covered in articles in next month's SOAP, and subsequent issues,—specifications for floor waxes as written by the buyer, cockroaches and their relative resistance to insecticides, speeding up the Peet-Grady Test by short-cuts, and a study of Peet-Grady results, the railroads as a market for sanitary chemical products,—and others on low-cost soap perfuming, brushless shave creams, and the like. Don't miss them!

New Insecticide Booklet

A new booklet on the habits and control of household insects under the title of "Insects, Your Problem and Mine," has just been issued by John Powell & Co., New York. The booklet deals principally with the control of insects by use of various pyrethrum sprays and powders, giving detailed methods of application in order to obtain the best results. The common household insects are taken up one at a time and their habits and dangers pointed out, followed by detailed instructions for their control. The subjects of insect control in factories, hotels, etc. and on the farm are also covered briefly. The new booklet is attractively made up and is printed in three colors. It contains no advertising matter and is intended for distribution by insecticide manufacturers and dealers for general educational purposes. All told, it is an extremely well conceived booklet, both typographically and otherwise.

PALE CRESYLIC ACID
ALL GRADES

• • •

HIGH BOILING
TAR ACIDS

• • •

CRESYLIC CREOSOTE

• • •

MIRVALE CHEMICAL CO., Ltd.
MIRFIELD YORKS, ENG.

Mr. Buyer:

WINDSOR NO RUBBING LIQUID WAX can be used on all types of flooring. . . .

Yet WINDSOR manufactures other types of floor wax. WHY? . . . Because different flooring and different conditions cannot be all treated alike. That is why we invite your inquiries for WINDSOR. . . .

1. NO RUBBING WATERPROOF Liquid Wax that dries in twenty minutes to a shine and can be rebuffed.
2. PASTE, LIQUID or SLIPRUF wax that gives a durable beautiful finish.
3. PIGMENT wax in colors (Red, Green, Brown, Buff, Black, Grey).
4. STAIN wax in Oak, Walnut, etc.
5. BOWLING ALLEY POLISH.

In bulk or under private label.
WINDSOR WAX COMPANY, INC.
53 Park Place New York

SPECIALTY
SOAP PRODUCTS

Liquid Soap Base
Potash Oil Soap
Liquid Soap
U. S. P. Green Soap
Auto Soaps
Shampoo
Pine Oil Soap
Shampoo Base
U. S. P. Cresol Compound
Coal Tar Disinfectants
Pine Oil Disinfectants
Insecticides
Liquid Floor Wax

We manufacture for the trade only

HARLEY SOAP CO.,
2852 E. Pacific St.,
Philadelphia, Pa.

Ask for samples of above specialty bulk products.

T. G. COOPER & CO.
INC.
47 North Second Street
Philadelphia

•

Import and Spot Lots of

Cresylic Acid
Commercial Olive Oil
Olive Oil Foots
Palm Oil
Castor Oil
Rapeseed Oil
Japan Wax
Carnauba Wax
Carbonate of Potash
Bicarbonate of Potash
S. American Vegetable Oils and Oil-Bearing Nuts

Bureau Checks Specifications

National Bureau of Standards, Washington, through a circular to manufacturers, distributors, and consumers of household liquid insecticides, and various disinfectants has submitted the new official specifications of the National Association of Insecticide & Disinfectant Manufacturers for these products to interested parties with a view to approving them as U. S. commercial specifications. Copies of the specifications have been sent out and comments or criticism are desired by the Bureau. These specifications before being sent to various industrial units for their approval, were reviewed by the Food & Drug Administration. Firms which indicate their approval and acceptance of the specifications to the Bureau will be listed in printed pamphlets as official acceptors of the specification. The circular to the trade was issued by F. W. Reynolds of the Division of Trade Standards, National Bureau of Standards, Washington, D. C.

Form Southwestern Products

W. A. Sammis, president of the Southwestern Products Co., Kansas City, Mo., has purchased the Century Products Co. of that city and is operating the business under the former name. Southwestern Products is located at 418 West 9th St., Kansas City, and is manufacturing and dealing in a line of industrial cleaning materials and sanitation supplies, including floor products, insecticides, deodorants, etc. Prior to forming the new company, Mr. Sammis was for several years connected with the Century Products Co.

Friar Tries the Dogs

Reports from Orlando, Fla., state that Friar Thompson, well-known entomologist of the Hercules Powder Co., Wilmington, accompanied by Mrs. Thompson and David Lynch of John Powell & Co., Chicago office, were spotted at the dog track there recently by the local reporter for SOAP. Rumor has it that Mr. Thompson placed the family bankroll plus previous winnings on the nose of a pup in the last race. The dog was picked by the new Scientific Selector System, invented by Friar, which consists of withdrawing three coins from the left-hand pocket with the eyes shut. The last number on the third coin withdrawn is the number of the winning dog. At any rate, with said dog carrying the Thompson-Lynch wad on his schnozzle and running about two lengths to the good fifty yards from home at 10 to 1, the darn mutt tripped and fell. The Thompsons, Lynch, et al walked home.

Start "Flit" Promotion

Stanco, Inc., New York, is promoting its liquid insecticide, "Flit" with an advertising campaign of "straight selling copy" in leading national magazines. The "Dr. Seuss" cartoons employed last year by Stanco in its "Flit" promotion will not be used this year until late summer.

Ozene Laboratories, sanitary products manufacturers, formerly at 606 W. Oregon St., Milwaukee, have moved to 2867 North 50th Street.

THE insecticide and disinfectant industry was well represented at the annual Drug and Allied Chemical Trades Dinner at the Waldorf-Astoria, New York, on March 3. All told, 1,800 persons attended. Those shown here were overtaken by our intrepid cameraman, Charles Opitz, president of John Opitz, Inc., around whom and whose flashlight camera, no person is safe and nothing is sacred. Below is J. L. Brenn, president of the Huntington Laboratories, Huntington, Ind., who as president of the National Association of Insecticide and Disinfectant Manufacturers, sat on the dais with the big-wigs. On the right below is one of America's famous entomologists, who like Garbo, is happy in being alone at last. Below, among others are Messrs. Sam Bell of Pittsburgh; Morrison and Smith of Socony-Vacuum; Baird of Baird & McGuire; Gothard and Dumas (Charley, not Alexander) of Sinclair Refining; "Henry Says" Nelson of Chemical Supply; Hughes and Levernier of Huntington Labs.; Weed, the slumbering entomologist, and Haude of John Powell & Co.

KESSCOCIDE 95

ALPHA NAPHTHYL ISO-THIOCYANATE

A NEW SYNTHETIC INSECTICIDE

COLORLESS SOLUTIONS

ODORLESS ECONOMICAL

NON STAINING

INQUIRIES SOLICITED

THE KESSLER CHEMICAL CORPORATION

DELAWARE AVE. & MIFFLIN ST. PHILADELPHIA, PA.

A new floor wax

for the janitor supply
and jobbing trades which is

waterproof

and which gives a

high gloss

ZIP-ON WAX

Dries very bright and becomes water resistant as soon as dry. Wax content guaranteed 100% Carnauba. Supplied in bulk, or with your label in any size container.

Shawmut Specialty Co.

91 Bickford St. Boston

L O W E L L ' S

NEW ELECTRIC SPRAYER

FOR EVERY USER OF
INSECTICIDES AND DISINFECTANTS

Motor 1/50 H.P. Roto Pressure type. 6 ft. cord. Off and On Switch. Chrome Container. Adjustable Nozzle. 110-120 volts, 25-60 cycle.

Our new Model No. 310 electric sprayer holds promise of being the outstanding sprayer for applying insecticides and disinfectants. It is smooth-running, produces large volume of spray, is of sturdy construction — we guarantee it will stand up under the hardest use. Don't take our word regarding the unusual qualities of the No. 310—place a trial order today and see for yourself what it will do. You will be agreeably surprised at the price.

LITERATURE SENT ON REQUEST

LOWELL MANUFACTURING CO.

NORTH PIER TERMINAL, OPPOSITE NAVY PIER
CHICAGO, ILL.
FACTORY: LOWELL, MICHIGAN

SOAP DIES and STAMPS

—for—
TOILET SOAPS
LAUNDRY SOAPS
BATH TABLETS
STAMPING

For Foot and Power Presses

Manufacture Backed by 35 Years' Experience

ANTHONY J. FRIES

717 Sycamore Street Cincinnati, O., U. S. A.

Agrees to FTC Stipulation

Vaccinol Products Corp., Memphis, Tenn., has entered into stipulations with the U. S. Federal Trade Commission agreeing to discontinue representing that "Vaccinol", a treatment for the control of termites, will penetrate every possible channel where termites might thrive and thus eliminate them. The company also agrees to stop using any terminology implying that the product is more than a palliative treatment effective for only a limited time.

Cube Root Imports Up

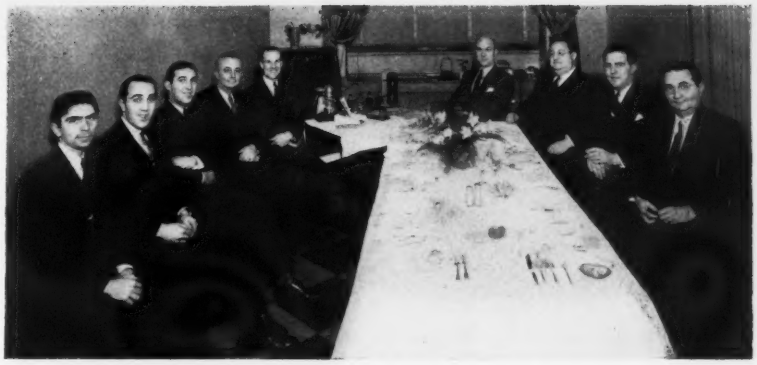
Imports of cube root into the United States during 1937 show an increase of almost 72 per cent over 1936, according to preliminary statistics. The total imports of cube root for 1937 were 294,484 pounds, compared to 171,600 pounds in 1936. The failure of cube root to find even greater acceptance on the American market has been due to lower quotations offered on Brazilian timbo, and the poor quality of the roots shipped from Iquitos in 1935, according to advice from Lima. The practice of analyzing the roots for rotenone content before shipment, and the generally improved condition of shipments are cited as reasons for the substantial increase in 1937.

New Type Plunger

Chicago Sanitary Products Co., Chicago, is marketing a new type plunger known as the "Air Force". It is of larger capacity than the usual type plungers offered and is said to give a greater suction pull. The product is being distributed exclusively through jobbers. Further details can be obtained by writing the manufacturer or the publishers of SOAP.

Zonite Reports Greater Net

Zonite Products Corp., New Brunswick, N. J., reports a net profit for 1937 of $142,365, after $33,300 provision for surtax, equal to 17 cents each on 825,656 shares of $1 per capital stock, excluding 19,900 treasury shares. This compares with a net profit in 1936 of $98,307, or 12 cents a share on 825,552 common shares then outstanding. Net sales last year increased 16 per cent over 1936.



Annual dinner of the staff of V. P. Adams, Inc., Jamaica, N. Y., held recently at the Hotel Whitman, Jamaica. The firm now has a branch at Danbury, Conn., to serve the New England territory. A line of sanitary supplies and specialties is manufactured and distributed by the company. V. P. Adams is president.

To War on Insects

The New York State Conservation Department is planning to attack three major plant pests and diseases during 1938. They are the alfalfa snout beetle, the Japanese beetle and the Dutch elm disease. Poisoned "bait" is being prepared, the department said.

Altenbern Heads Cardinal

G. A. Altenbern has recently been elected president of Cardinal Laboratories, Inc., Chicago, manufacturers of "Rite-Way" white shoe polish. Mr. Altenbern was formerly vice-president of Midway Chemical Co.

Aronson Has Measles

Harold L. Aronson, vice-president of U. S. Sanitary Specialties Corp., Chicago, is back at his desk following an illness which proved to be an old-fashioned case of measles.

Edward A. Mechling Dies

Edward Anthony Mechling, 60, assistant general manager of Mechling Brothers chemical division of General Chemical Co., Camden, N. J., died in his home in Moorestown, N. J., recently, following a heart attack.

Pennsylvania Oil Appoints

Associated Chemists, Inc., have been appointed Chicago representatives for Pennsylvania Oil Products Refining Co., Warren, Pa. The company is introducing a line of white oils and petrolatums.

To Promote "Griffin Allwite"

Griffin Mfg. Co., shoe polishes, Brooklyn, has announced a summer advertising campaign for "Griffin Allwite", beginning April 19. In addition to radio, the plans cover magazine, car cards, station posters and out-door advertising.

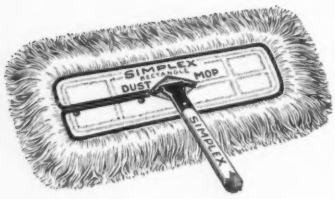
Lehn & Fink Net Lower

Lehn & Fink Products Co., Bloomfield, N. J., reports a net profit for 1937 of $532,623, equivalent to $1.33 a capital share. This compares with a net profit of $685,086 in 1936, or $1.71 a share.

Merck Net Greater

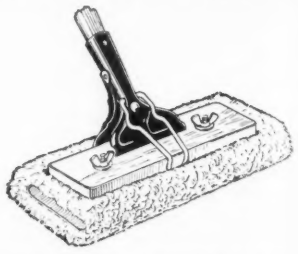
Merck & Co., Rahway, N. J., report a net profit in 1937 of $1,095,248, equal, after preferred dividends, to $2.72 a share on common stock, compared with $1,048,222 earned in 1936.

SIMPLEX DUST MOP — HOLZ-EM WAX APPLICATOR



The SIMPLEX is the newest, most practical and economical thing in dust mops—a strong unified wire frame with a swivel handle and *a mop that comes off to wash.* Available in several sizes.

The HOLZ-EM has long been acknowledged as the best for applying and spreading liquid wax, varnish, seals and other floor finishes. Sheep wool pads are washable and easily replaced.



AMERICAN STANDARD MFG. CO., 2509 SO. GREEN STREET, CHICAGO

F. & S.

Quality Colors
for
TOILET SOAPS
LIQUID SOAPS
TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.
205 FULTON STREET
NEW YORK, N Y.
Import—Manufacture—Export

SPECIAL PERFUMES FOR SPECIAL SOAPS

Our Research Laboratories have devoted considerable attention to the perfuming of Antiseptic, Sulfur, Superfatted and other Special Soaps

Your inquiries solicited.

COMPAGNIE PARENTO, Inc.
CROTON-ON-HUDSON, N. Y.
NEW YORK CITY DETROIT CHICAGO
LOS ANGELES SAN FRANCISCO
SEATTLE PORTLAND, ORE. TORONTO

NAPHTHENIC SOAPS
NAPHTHENIC ACID SLUDGES

(Mineral Oil Residues)

"Flag Brand" White Mineral Oils - - - U.S.P. and Technical

Specifications upon request

S. Schwabacher & Co., Inc.
25 Beaver Street New York

Now Franklin Products

Tampa Sanitary Supply Co., Tampa, Fla., has moved to new quarters at 409 Cass St., and has changed the name of the firm to the Franklin Products Co. L. S. Elsinger is now in charge of sales for the revamped company whose plans call for extending their sales territory beyond the borders of Florida and the introduction of several new sanitary supply items.

G. R. Mfg. Moves

G. R. Manufacturing Co., Tampa, Fla., manufacturers of insecticides and disinfectants, has moved into new quarters at Franklin and Oak Sts., Tampa. M. D. Reay is head of the company.

Hill Mfg. Expands

Hill Manufacturing Co., Atlanta, manufacturers of insecticides, disinfectants and allied sanitary products, have moved to larger quarters at 203 Walker St., S. W. Atlanta. A. I. Hillman and R. Hillman operate the Hill Company.

Join Professional Assn.

Academy Exterminating Co. and Technical Pest Control Co. are newly elected members of the Professional Exterminators Assn., New York.

Zep Mfg. Moves

Zep Manufacturing Co., Atlanta manufacturers of sanitary supplies, have moved to new and larger quarters at 442 Cain St., N. E., Atlanta, where they now have a modernly equipped plant.

Consider Cooperative Buying

Members of the Professional Exterminators Assn., New York, are investigating possibilities of a cooperative purchasing program. A committee has been appointed to investigate the subject consisting of Jack Benmosche, Evins Exterminating Co., chairman, Clarence Lieberman, Thoro Exterminating Co., Charles Pomerantz, Bell Exterminating Co., and M. H. Oachs, Exterminating Materials Co. A questionnaire has been mailed to members of the association to determine the quantities of various exterminating materials they use annually. Included in the list are such items as pyrethrum, red squill, sodium fluoride, cresylic acid, arsenic, sprayers, etc.

Form Cincinnati P. C. A.

The Cincinnati Pest Control Association was organized last month with four charter members. They are: Allen Chemical Co., Rose Exterminator Co., Security Storage Co., and Wilmar Co. Officers elected were Bob Adams, Allen Chemical, president; Bob Yaeger, Rose Exterminator, secretary and treasurer.

Mrs. Nance Dies

Mrs. J. P. Nance, owner and operator of Mysterious Chemical Co., New York, died last month.

Hear Talk on "Termites"

The Associated Exterminators & Fumigators of New York heard an address by Neely Turner, assistant entomologist of the Department of Entomology, Connecticut Agricultural Experiment Station, at a meeting at association headquarters, 7 East 44th Street, last month. The subject of Mr. Turner's talk was "Termites." A. J. Wordsell, manager of the Adjustment Bureau, Inc., New York, was also a speaker. He discussed credit and the importance of careful investigation of a client's rating before any work is begun.

Issue Cryolite Spray Study

"Cryolite Spray Residues and Human Health" is the title of a 50-page bulletin issued recently by the University of Tennessee Agricultural Experiment Station, Knoxville, Tenn. Bibliography of sources is included.

P.C.O. In Coast Conference

More thorough knowledge of the fundamentals of pest control service was the declared objective of the First Pacific Coast Pest Control Operators' Conference held last month at Stanford University, Palo Alto, Calif. The conference, which is to be an annual event, ran for four days beginning March 28. Pest control operators in attendance heard a series of papers dealing with many subjects in the field of entomology and pest control. Among the papers of particular interest were the following: "Economic Importance of Insects" by Professor J. J. Davis, Dept. of Entomology, Purdue University; "The Relationship of Insects and Rodents to Public Health" by Professor William B. Herms, University of California, Berkeley; "How Pest Control Poisons React on Humans" by Dr. P. J. Hanzlik, Stanford University School of Medicine, Palo Alto.

Also, "Discussion of a Pest Control Business" by G. R. Lovejoy, Western Exterminator Co., Los Angeles; "Insect Structures as They Relate to Insect Control. Life History and Habits of Insects" by Professor Carl D. Duncan, San Jose State College, San Jose, Calif.; "Principles of Insect Control" by Professor J. J. Davis, Dept. of Entomology, Purdue University, Lafayette, Ind.; "Injurious Beetles Which the Pest Control Operators Are Likely to Find in the Course of Their Investigations of Buildings" by Dr. Edwin C. Van Dyke, University of California, Berkeley; "The Termite Problem" by Professor William B. Herms, University of California. Berkeley; "The California Structural Pest Control Law" by W. F. Smith, president of the State Structural Pest Control Board, Sacramento; "Future Recommendations and Changes in the Present Structural Pest Control Law" by G. V. Slater, registrar of the State Structural Pest Control Board; "History of Commercial Pest Control" by L. R. Alderman, Alderman Co., Pasadena; "The Economic Poisons' Law and Iits Relation to the Pest Control Operator" by Dr. Alvin J. Cox, Dept. of Agriculture, State of California; "Chemistry and Modern Insecticides Used in Pest Control" by Dr. W. M. Hoskins, University of California. Berkeley, Calif.

Special Offerings *by* "NEWMAN"

New and Rebuilt Soap Machinery

WE carry a complete line of equipment for the soap and sanitary product industries. All used equipment is rebuilt in our own shops and is guaranteed to be in first class condition. All new equipment that we manufacture, such as crutchers, frames and cutting tables is of the finest material and workmanship. You can buy with confidence from Newman.

USED SPECIALS

H-A, 1500, 3000, 4000, 5000 lbs. capacity, Steam Jacketed Crutchers.

Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.

Ralston Automatic Soap Presses.

Scouring Soap Presses.

Empire State, Dopp & Crosby Foot Presses.

2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.

H-A 4 and 5 roll Steel Mills.

H-A Automatic and Hand-Power slabbers.

Proctor & Schwartz Bar Soap Dryers.

Blanchard No. 10-A and No. 14 Soap Powder Mills.

J. H. Day Jaw Soap Crusher.

H-A 6, 8 and 10 inch Single Screw Plodders.

Allbright-Nell 10 inch Plodders.

Filling and Weighing Machines for Flakes, Powders, etc.

Steel Soap frames, all sizes.

Steam Jacketed Soap Remelters.

Automatic Soap Wrapping Machines.

Glycerine Evaporators, Pumps.

Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.

Perrin 18 inch Filter Press with Jacketed Plates.

Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.

Day Grinding and Sifting Machinery.

Schultz-O'Neill Mills.

Day Pony Mixers.

Gardiner Sifter and Mixer.

Proctor & Schwartz large roll Soap Chip Dryers complete.

Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.

Day Talcum Powder Mixers.

All types and sizes—Tanks and Kettles.

Ralston and H.A. Automatic Cutting Tables.

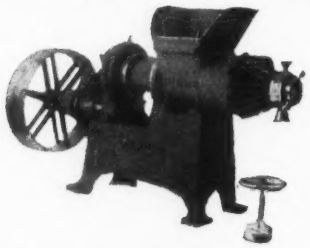
Soap Dies for Foot and Automatic Presses.

Broughton Soap Powder Mixers.

Williams Crutcher and Pulverizer.

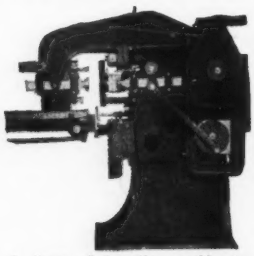
National Filling and Weighing Machines.

SINGLE SCREW SOAP PLODDER



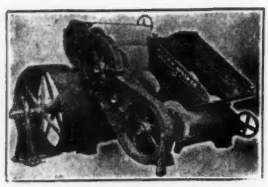
Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.

JONES AUTOMATIC



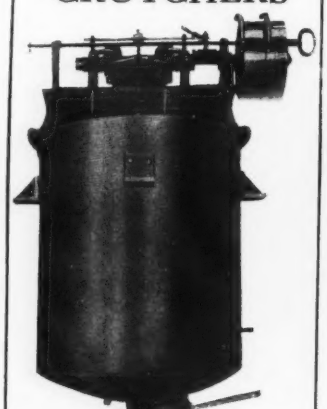
4 Jones Automatic combination laundry and toilet soap presses. All complete and in perfect condition.

H-A SOAP MILL



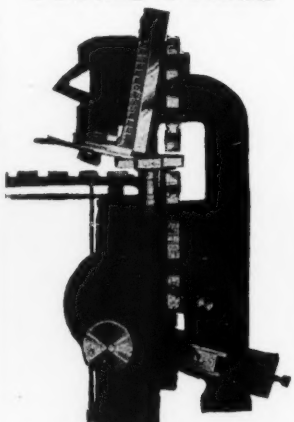
This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls. Priced for quick sale.

Used CRUTCHERS



This steel, steam jacketed, soap crutcher will crutch any kind of soap. Guaranteed first class condition.

Automatic JONES PRESS



Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute. A real buy at an attractively low price. Has been completely rebuilt in our shops.

Send us a list of your surplus equipment—we buy separate units or complete plants.

NEWMAN TALLOW & SOAP MACHINERY COMPANY

1051 W. 35th St., Chicago, Illinois

Our Forty Years Soap Experience Can Help Solve Your Problems

Classified Advertising

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 254 West 31st St., New York.

Positions Wanted

Expert Soapmaker and Chemist, can make all kinds of soap. Also knows the rendering business. Address Box No. 376, care *Soap*.

Young Men—Two young men seeking positions, one (30 yrs. old) a graduate chemical engineer, the other a high school graduate (21 yrs. old) with chemical and drug store experience. Further details from the Editor of *Soap*. Will do any type of work to break into new position.

Worker with 12 years' experience in soaps, disinfectants, cleaning powders, desires connection. Familiar European practice. Prefer inside position. Address Box No. 388, care *Soap*.

Salesman is interested in carrying line of soaps, powders, flakes, etc. Now selling janitorial chemicals to institutions and restaurants in Westchester County and vicinity. Address Box No. 389, care *Soap*.

Chemist—man with twenty-five years' practical experience in soaps, cosmetics, oils, fats, etc., having been connected with several large companies, is open for employment or consultation one or two days each week. Opportunity for small manufacturer to obtain expert assistance at reduced expense. Address Box No. 384, care *Soap*.

Chemist—With fifteen years' experience in soaps and perfuming materials with large soap manufacturing organization desires to make new connection. Wide experience and finest references. Address Box No. 362, care *Soap*.

Positions Open

Wanted: Salesman to sell NON POISONOUS guaranteed roach powder. Liberal commission. Also jobbers. Address Box No. 379, care *Soap*.

Rebuilt Soap Machinery

overhauled at our Newark Plant—covers 8 acres —modern machine shop—railroad siding.

4—Steel Wool Mfg. Machines, complete.
3—Automatic Soap Wrapping Machines, electric glue sealers.
1—Jones automatic Soap Press.
2—Pneumatic Scale Co. Carton Packaging Units.
1—Proctor & Schwartz Soap Chip Dryer, steel frame, 72″ Apron, with 5-roll P. & S. Mill.

2—Ferguson Carton Wax Wrapping Machines.
1—5000 lb. Vertical Jacketed Crutcher.
1—Dopp 1500 lb. Vertical Jacketed Crutcher.
1—P. & S. 5-roll, watercooled Mill.
2—Broughton 1200-1500 lb. Soap Powder Mixers.
2—Rutchmann 4-roll Inclined Granite Mills, 18″x24″.
4—Houchin Soap Plodders, 8″ and 10″.
2—Soap Foot Presses.
4—Houchin 4 and 6-Knife Chippers, 20″.
1—Houchin 1200 lb. Power Slabber.
1—Houchin 2-way Soap Cutting Table.
2—Blanchard 10A Soap Powder Mills.
10—Taber Soap Pumps, 3½″ to 1½″.

Miscellaneous—Filter Presses and Filters, Amalgamators, Soap Frames, Kettles, Mixers, Pony Mixers, Powder Fillers, Labellers, Wrapping Machines, Tanks, Pumps, Boilers, etc.

Send for Latest Bulletin

CONSOLIDATED PRODUCTS CO., INC.
15-21 PARK ROW — NEW YORK, N. Y.
BArclay 7-0600 — Cable Address: Equipment
We buy your idle Machinery—Send us a list.

BRANDED PRODUCT

Wanted

WE have been designated to investigate with a view to purchasing outright the brand name, goodwill, etc., of a detergent, insecticide, or drug product with national distribution and reputation, which has been nationally advertised for the past five years or longer, and doing two hundred thousand dollars or more annually. Product sold through drug or grocery stores. Prospective purchaser is large nationally-known manufacturer. Details in complete confidence to Box No. 360, care *Soap*.

Raw Materials and Equipment

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 134 for page numbers. *"Say you saw it in SOAP."*

ALKALIES

John A. Chew, Inc.
Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

American-British Chemical Supplies
Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Firmenich & Co.
Charles Fischbeck Co.
Fritzsche Brothers, Inc.
General Drug Co.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Monsanto Chemical Co.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
Solvay Sales Corp.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

BULK AND PRIVATE BRAND PRODUCTS

Associated Chemists, Inc.
Baird & McGuire, Inc.
Buckingham Wax Corp.
Candy & Co.
Chemical Supply Co.
Chicago Sanitary Products Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Exterminating Materials Co.
Federal Varnish Co.
Fuld Bros.
Harley Soap Co.
Koppers Co.
Kranich Soap Co.
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
Shawmut Specialty Co.
Sweeping Compound Mnfrs. of N. Y.
Uncle Sam Chemical Co.
T. F. Washburn Co.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American-British Chemical Supplies
John A. Chew, Inc.
Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Eastern Industries
Hooker Electrochemical Co.
Industrial Chemical Sales Div.
Innis, Speiden & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Philadelphia Quartz Co.
Rohm & Haas Co.
H. H. Rosenthal Co.
E. M. Sergeant Pulp & Chem. Co.
Solvay Sales Corp.
Standard Silicate Co.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid Oil, etc.)

American-British Chemical Supplies
Baird & McGuire, Inc.
T. G. Cooper & Co.
Innis, Speiden & Co.
Koppers Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

COLORS

Fezandie & Sperrle
Pylam Products Co.

CONTAINERS and CLOSURES

Anchor-Hocking Glass Corp. (Closures & Bottles)
Capstan Glass Co. (Bottles)
Continental Can Co. (Tin Cans)
Hazel-Atlas Glass Co. (Bottles and Jars)
National Can Co. (Cans)
Salem Glass Works (Bottles)
Sutherland Paper Co. (Packages)
Wilson & Bennett Mfg. Co. (Steel Pails and Drums)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co.
Fuld Bros.

ESSENTIAL OILS

Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
Felton Chemical Co.
Firmenich & Co.
Charles Fischbeck Co.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

INSECTICIDES, SYNTHETIC

Kessler Chemical Co.
Rohm & Haas Co.

(Continued on page 132)

Toilet Soap Manufacturer, producing attractive popular priced line, can place two or three good salesmen on liberal weekly commission basis. Side line or full time. Write fully giving experience, references, and territory preferred. Address Box No. 374, care *Soap.*

Salesmen Wanted: finest soaps, cleaners, polishes, waxes, disinfectants, deodorants; reliable manufacturer for sixty years. Prompt liberal commission. Address Baum's Castorine Co., Rome, N. Y.

Insecticides—man with experience in the sale of insecticide raw materials and who is acquainted with the household insecticide industry, is needed by a well-known manufacturer. Send details of your experience, etc., which will be held in confidence. Address Box No. 385, care *Soap.*

Miscellaneous

Wanted: 1,000 gallon closed black iron or steel tank. Address Box No. 383, care *Soap.*

Two new outstanding formulaes for sale, (Aluminum and Furniture polish). Write for sample and all information. Address Box No. 381, care *Soap.*

Degreasing Compound. Complete instructions for manufacture of this new and popular specialty are available from a competent chemist at a reasonable cost. Address Box No. 378, care *Soap.*

Floor Brushes—We manufacture a very complete line. Catalogue sent upon request. Flour City Brush Company, Minneapolis, Minn., or Pacific Coast Brush Co., Los Angeles, Calif.

No-Rubbing Wax—No Radio Programs—No Ballyhoo. The best wax you ever saw at amazingly low prices. Samples submitted. Twi-Laq Chemical Co., 221 Sullivan St., Bklyn., N. Y.

Wanted: Manufacturer is in position to purchase assets and equipment of a going business manufacturing chemical specialties and sanitary products with a total volume up to $100,000 a year. Give details, location, approximate price, etc., in reply to Box No. 371, care *Soap.*

Complete Soap Plant Equipment for Sale: Proctor soap chip dryer; automatic soap press; wrapping machine; 4 roll stone mills; foot press; plodders 6", 8", 10"; soap boiling kettles; 6 knife chipper; two-way cutting table; frames; filter presses; crutchers; mixers, boilers. Stein Equipment Corp., 426 Broome St., New York City.

We announce development of new type soap colors

PYLAKLORS

They have good fastness to alkali, light, tin, ageing.

The following shades are already available:

Bright Green	Dark Brown
Olive Green	Palm Green
Yellow	Golden Brown
True Blue	Violet

It will pay you to send for testing samples.

PYLAM PRODUCTS CO., INC.

Manufacturing Chemists, Importers, Exporters

799 Greenwich St. New York City

Cable Address: "Pylamco"

Olive Oil

Olive Oil Foots

Deliveries spot and future in barrels, tank cars, drums or tank wagons.

ESSENTIAL OILS

Lemon—Bergamot—Orange

LEGHORN TRADING CO.

INC.

155 East 44th St., New York

Phone: VAnderbilt 3—6361-2-3

ITALY—SPAIN—GREECE—TURKEY—AFRICA

Raw Material and Equipment Guide

(*Continued from page* 130)

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 134 for page numbers. *"Say you saw it in SOAP."*

MACHINERY

J. H. Day Co. (Mixers, Sifters, Mills)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Koppers Company (Coal Tar Plants, Power Plants, Valves, Castings, Pipe, Tanks)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)
Viking Pump Co. (Pumps)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.

MISCELLANEOUS

American Standard Mfg. Co. (Wax Applicator)
Anchor-Hocking Glass Corp. (Metal Caps)
T. G. Cooper & Co. (Waxes)
Dicalite Co. (Insecticide Carrier, Filtering Materials, Abrasives)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
Exterminating Materials Co. (Exterminators' Supplies)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Div. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants and Waxes)
Koppers Company (Coal, Coke, Roofing Materials)
Pylam Products Co. (Lathering Agent)
S. Schwabacher & Co. (Naphthenic Soaps, White Mineral Oils)
Victoria Paper Mills Co. (Paper Accessories)

OILS AND FATS

T. G. Cooper & Co.
Eastern Industries
Independent Mfg. Co.
Industrial Chemical Sales Div.
Leghorn Trading Co.
Michel Export Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Orbis Products Corp. (Stearic Acid)
E. M. Sergeant Pulp & Chemical Co.
Wecoline Products Co.
Welch, Holme & Clark Co.

PARADICHLORBENZENE

John A. Chew, Inc.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Monsanto Chemical Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING COMPOUNDS

Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
Felton Chemical Corp.
Firmenich & Co.
Charles Fischbeck Co.
Fritzsche Brothers, Inc.
General Drug Co.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

PETROLEUM PRODUCTS

Atlantic Refining Co.
O'Connor & Kremp
Pennsylvania Refining Co.
S. Schwabacher & Co.
L. Sonneborn Sons.

PYRETHRUM AND DERRIS PRODUCTS

Insect Flowers and Powder, Pyrethrum Extract, Derris Products

Associated Chemists, Inc.
Derris, Inc.
S. B. Penick & Co.
R. J. Prentiss & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
John Powell & Co.
H. H. Rosenthal Co.

SOAP DISPENSERS

Bobrick Mfg. Co.
Clifton Chemical Co.
Fuld Bros.

SODIUM SILICATE

E. I. du Pont de Nemours & Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Dobbins Mfg. Co.
Fumeral Co.
Lowell Manufacturing Co.
Mystic Products Co.

TRI SODIUM PHOSPHATE

John A. Chew, Inc.
E. I. du Pont de Nemours & Co.
Monsanto Chemical Works
H. H. Rosenthal Co.
Warner Chemical Co.

Professional Directory

PEASE LABORATORIES, Inc.
Chemists, Bacteriologists, Sanitarians
39 West 38th Street
New York
Food, Drug and Cosmetic Problems—Compliance with Official Requirements—Meeting New and Anticipated Competitions with Improved and New Products

H. A. SEIL, Ph.D E. B. PUTT, Ph.C., B.Sc.
SEIL, PUTT & RUSBY, INC.
Analytical and Consulting Chemists
Specialists in the Analysis of Pyrethrum Flowers, Derris Root, Barbasco, or Cube Root—Their Concentrates and Finished Preparations
ESSENTIAL OILS SOAP
16 East 34th Street, New York, N. Y.

STILLWELL AND GLADDING, Inc.
Analytical and Consulting Chemists
Members Association of
Consulting Chemists and Chemical Engineers
130 Cedar Street New York City

CONSULTANTS
offering their services to manufacturers of soaps and sanitary specialties should apprise the industry of their facilities through this professional card department. SOAP reaches 4,000 firms needing help of a professional nature.

KILLING
strength of Insecticides
by PEET GRADY METHOD
(Official I. & D. code method) and
PYRETHRINS in PYRETHRUM FLOWERS
(by Gnadinger's Method)
We raised and killed more than 1 million flies in the last 2 years
ILLINOIS CHEMICAL LABORATORIES, INC.
5235 WEST 65th STREET CHICAGO, ILL.

SOAPS — DETERGENTS
Analyses Development
Consultation Formulas
HochstadterLaboratories
INCORPORATED
254 West 31st St. New York City

Entomological Testing Laboratories, Inc.
We offer you a medium for purchasing insecticides on an intelligent basis.
Entomological testing by the Peet-Grady method, and chemical examination of insecticides are available.
114 E. 32nd St. New York, N. Y.

FOSTER D. SNELL, INC.
Chemists—Engineers
Every form of Chemical Service
305 WASHINGTON STREET BROOKLYN, N. Y.
215 N. Calvert Street, Baltimore, Md.

Patents—Trade Marks
Before disclosing your inventions to anyone send for blank form "Evidence of Conception" and instructions "How to Establish Your Rights."
All cases submitted given personal attention by members of the firm. Information and booklet free.
Lancaster, Allwine & Rommel
PATENT LAW OFFICES
Suite 402, Bowen Building Washington, D. C.

Refer To Your
SOAP BLUE BOOK
for F.D.A. Method for Testing of Disinfectants and Antiseptics.
Official N.A.I.D.M. Method for Testing and Grading of Insecticides.
MACNAIR-DORLAND CO.
Publishers
254 W. 31st Street New York, N. Y.

Skinner & Sherman, Inc.
246 Stuart Street, Boston, Mass.
Bacteriologists and Chemists
Disinfectants tested for germicidal value or phenol co efficient by any of the recognized methods.
Research—Analyses—Tests

Index to Advertisers

For product classification see pages **128** *and* **130**

***For further details see announcement in 1937 SOAP BLUE BOOK**

*American-British Supplies 58
American Standard Mfg. Co..... 126
Anchor-Hocking Glass Corp..... 8, 9
Applied Research Laboratories..... 133
*Aromatic Products, Inc..... 86
Associated Chemists, Inc..... 135
Atlantic Refining Co..... 88

*Baird & McGuire, Inc..... 92
Bobrick Mfg. Co..... 44
Books 10
*Breuer Electric Mfg. Co..... 116
Buckingham Wax Corp..... 120

Candy & Co..... 42
Capstan Glass Co..... 8, 9
Chemical Supply Co..... 110
John A. Chew, Inc..... 116
Chicago Sanitary Products Co..... 116
*Clifton Chemical Co..... 6
*Columbia Alkali Co..... 11
Compagnie Parento 126
*Consolidated Products Co..... 129
*Continental Can Co..... 17
T. G. Cooper & Co..... 122

*Davies-Young Soap Co..... 15
J. H. Day Co..... 72
*Derris, Inc. .....March
Dicalite Co. .....March
*Dobbins Mfg. Co..... 118
Dodge & Olcott Co..... 100
*Dow Chemical Co..... 81
P. R. Dreyer, Inc..... 77
*E. I. DuPont de Nemours Co..... 106

Eastern Industries 56
*Electro Bleaching Gas Co..... 4
Entomological Testing Laboratories..... 133
Exterminating Materials Co..... 120

*Federal Varnish Co..... 114
*Felton Chemical Co.....14, 89
Fezandie & Sperrle..... 126
Firmenich & Co.....March
*Charles Fishbeck Co. .....Feb.
Anthony J. Fries..... 124
Fritzsche Brothers, Inc.....48, 49
*Fuld Brothers 3
*Fumeral Co. 114

General Drug Co..... 13
*Givaudan-Delawanna, Inc. .....Front Cover, 85

Harley Soap Co..... 122
Hazel-Atlas Glass Co..... 16
Hercules Powder Co..... 87
*Hochstadter Laboratories 133
*Hooker Electrochemical Co.....Dec.
*Houchin Machinery Co..... 66
*Huber Machine Co..... 135

Illinois Chemical Labs..... 133
Independent Mfg. Co..... 135
Industrial Chemical Sales Division,
W. Va. Pulp & Paper Co..... 60
*Innis, Speiden & Co..... 54
International Nickel Co.....March
R. A. Jones & Co..... 18

Kessler Chemical Co..... 124
*Koppers Co. 78
Kranich Soap Co..... 56

Lancaster, Allwine & Rommel..... 133
*Leghorn Trading Co..... 131
Lowell Manufacturing Co..... 124

Magnus, Mabee & Reynard, Inc..... 80
Manufacturing Chemist .....March
*McCormick & Co..... 102
McLaughlin Gormley King Co.....4th Cover
Michel Export Co.....Jan.
Mirvale Chemical Co..... 122
Monsanto Chemical Co.....Feb.
Murray Oil Prods. Co.....March
Mystic Products Co..... 108

*National Can Co.....2nd Cover
National Seedsman 72
*Newman Tallow & Soap Machinery Co..... 128
*Niagara Alkali Co..... 4
Norda Essential Oil & Chemical Co..... 50

O'Connor & Kremp Co..... 110
*Orbis Products Corp..... 12

*Pease Laboratories 133
*S. B. Penick & Co..... 75
Pennsylvania Refining Co.....Jan.
Philadelphia Quartz Co..... 46
*John Powell & Co..... 76
*R. J. Prentiss & Co..... 84
*Proctor & Schwartz, Inc..... 70
*Pylam Products Co..... 131

*Reilly Tar & Chemical Co..... 52
*Rohm & Haas Co..... 98
H. H. Rosenthal Co..... 112

Salem Glass Works..... 8, 9
*C. G. Sargent's Sons Corp..... 58
Schimmel & Co., Inc.....March
George A. Schmidt & Co.....March
S. Schwabacher & Co..... 126
Seil, Putt & Rusby..... 133
E. M. Sergeant Pulp & Chem. Co..... 120
Shawmut Specialty Co..... 124
*Skinner & Sherman..... 133
*Foster D. Snell..... 133
H. de Sola e Hijos..... 120
*Solvay Sales Corp..... 79
*L. Sonneborn Sons..... 104
Standard Silicate Co.....March
Stillwell & Gladding..... 133
*Stokes & Smith Co..... 68
Sutherland Paper Co..... 135
Sweeping Compound Mnfrs. of N. Y.....March

Tar & Chem. Division, Koppers Co..... 78
*Jos. Turner & Co..... 38

Uncle Sam Chemical Co.....March
*Ungerer & Co.....3rd Cover

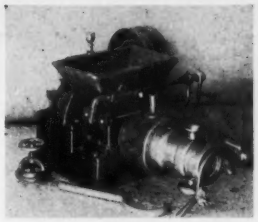
*Van Ameringen-Haebler, Inc.....7, 91
Victoria Paper Mills Co.....March
Viking Pump Co..... 118

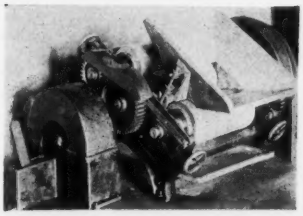
*Warner Chemical Co.....March
*T. F. Washburn Co..... 112
Wecoline Products Co..... 118
Welch, Holme & Clarke Co..... 52
*White Tar Co. of N. J..... 78
Wilson & Bennett Mfg. Co..... 54
Windsor Wax Co..... 122

***Every effort is made to keep this index free of errors**, but no responsibility is assumed for any omission.*

LABORATORY MILL AND PLODDER

Showing a very successful laboratory mill and plodder capable of producing a very nice-looking cake of soap weighing 2½ oz., measuring 3¾" long, 1⅝" wide and 1" thick. The mill is equipped with Quincy Granite rolls 4½" in diameter, 12" long. The plodder has a 3¼" diameter screw and is equipped with a cutting-off device and has an electric heating element to heat the water contained in the cup.



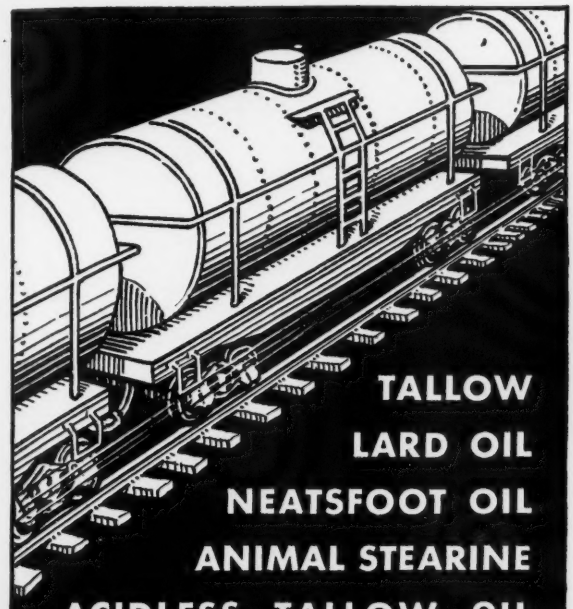


We also build a hand lever press to place on a bench with power enough to bring up the finest engraving on a set of dies. Dies may have a renewable set of letters and numbers so that each experimental lot may be marked as desired.

HUBER MACHINE COMPANY

Makers of good soap machinery for over 40 years

265—46th STREET BROOKLYN, N. Y.



TALLOW
LARD OIL
NEATSFOOT OIL
ANIMAL STEARINE
ACIDLESS TALLOW OIL

Prompt Delivery—Drums, Barrels, or Tank Cars.

INDEPENDENT MANUFACTURING CO.
Bridesburg P. O. Philadelphia, Pa.

Where IMPORTANT *Packaging* PROBLEMS *are* SOLVED!

Many problems pertaining to the packaging of soap and cosmetics have been solved by the Sutherland research laboratories.

Each special product presents a challenge to our scientists, artists and craftsmen to develop a distinctive package that is an ideal combination of practical construction, economical production and attractive appearance.

Write us about your packaging problems or needs.

SUTHERLAND PAPER COMPANY KALAMAZOO, MICH.

The Perfect Twins

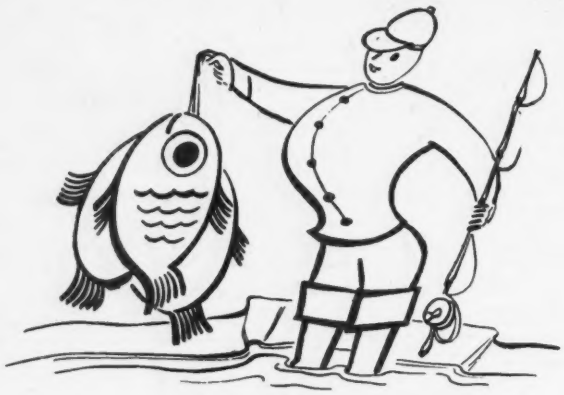
MORTOLIN
the
Ideal Mothproofing Compound
Oil Soluble Non-Poisonous

MORTICIDE
the
Tested Bed Bug Concentrate
Odorless Efficient

Send for Samples and Complete Information

PYRETHRUM PRODUCTS DERRIS PRODUCTS

ASSOCIATED CHEMISTS, INC.
6243 So. Ashland Ave. Chicago, Ill.



"Some guys have *all* the luck"

You've heard people say that.

Well, we think it's boloney.

Sure, some guys are better fishermen than others, better golfers, better swimmers—

Sure, some guys are making more money than others—

But it's not all luck.

It's a knowledge of your market if you have a product to sell. And it's a knowledge of the most efficient media through which that market can be reached.

Like SOAP, for instance.

Advertisers use SOAP as a medium to sell their products because the ratio of potential purchasing power to total circulation is high in SOAP—and they get results.

Why?

Because SOAP reaches a *voluntary quality* circulation.

Because the executives, purchasing agents, managers and plant men who read SOAP do so because they are attracted month in and month out by the valuable *editorial content*, not by circulation drives, premiums, special offers, bargain prices, and the like.

In short, because SOAP offers the most productive advertising space at the most reasonable rate.

No, *sir*. It's not luck, it's *results*.

How about letting us help *you* get results?

SOAP *and Sanitary Chemicals*

254 WEST 31st STREET NEW YORK

Tale Ends

HAVING just recovered from the annual shock of paying a Federal income tax, and being face-to-face with the same in the matter of a state income tax,—we pause to read that the average American consumer pays 122 hidden taxes on the things which he or she buys. But, "hidden taxes" lack that unpleasantness which accompanies the payment of real chunks of good American cash in a lump, knowing well that about half of it will be wasted through the whims of politicians. Bring these "hidden taxes" out in the open, make them uncomfortable and unpleasant to pay, and the man in the lower brackets will soon become tax conscious. But politicians know this, and that is why the "little man" pays his taxes painlessly in dribs and drabs.

* * *

How high is a high-titer soap? We heard a dozen well-known technical men of the soap industry argue this point recently. They seemed to agree that in the East a 41 titer is high, but in the Middle West, 43 to 44 is considered high because of the greater ease with which high-titer tallow is to be had. But they did not settle the point whether a 39 titer soap is of the high variety, or something else.

* * *

The 1938 BLUE BOOK and Reference Manual is now being mailed free to all paid up subscribers to SOAP. Yours should arrive soon. If not, — and you received a subscription expiration notice,—better send in that check *now* before they are all gone. In past years, the BLUE BOOK has been sold out pretty much in a hurry.

* * *

All luck? Read the accompanying advertisement. It's a cinch that when it comes to quality circulation,—the kind that really reads a magazine and buys what's advertised in it in big gobs,—SOAP is the real McCoy!